

# EXHIBIT

# 12

# **Contracting Barriers and Factors Affecting Minority Business Enterprises**

A REVIEW OF EXISTING DISPARITY STUDIES

DECEMBER 2016





# Contracting Barriers and Factors Affecting Minority Business Enterprises

A REVIEW OF EXISTING DISPARITY STUDIES



PREPARED FOR

**Minority Business Development Agency**

Under Contract SB1352-15-SE-0425

PREPARED BY

Premier Quantitative Consulting, Inc.  
Orlando, FL

DECEMBER 2016



## Foreword

Winning contracts that buy your products, services, proprietary work processes, or intellectual property is what every entrepreneur strives to accomplish when they go into business. Contracts are the business barometer that measure the health of your business and determine whether you grow, stagnate, or fail. For America to build a healthy and inclusive economy, minority business enterprises (MBEs), must have full and fair access to the range of local, state and federal contracting opportunities. Disparity studies conducted over the past 10 years at the state and local levels tell a much different story.

This study, *Barriers and Factors Affecting Minority Business Enterprises: A Review of Existing Disparity Studies*, was commissioned by the U.S. Department of Commerce, Minority Business Development Agency to expose the patterns and trends uncovered in these disparity studies and to quantify the impact of discrimination in America's procurement systems. In doing so, it reveals that MBEs typically obtain a lower number and dollar value of contracts in proportion to the number of MBEs available. The report also reveals that the industry groups experiencing the highest ratios of disparity include construction, professional services, architecture, engineering services, and goods and supplies.

Beyond the civil injustices that have been protested across the country and the disenfranchisement of minority communities, there are distinct underlying issues that primarily center on economic disparity. Unemployment, low workforce readiness, lack of transportation infrastructure, a shortage of affordable housing, and social issues have negatively impacted minority communities nationwide. While MBEs are contributing to the economic vitality of these communities by addressing social issues in new ways, they must have the opportunity to develop capacity and entry points into the industries of tomorrow. Local governments must change their economic development models that enable MBEs to grow and create jobs, serve as positive role models to disadvantaged youth, and expose residents to innovation and emerging industries to generate wealth creation. These business owners seek new opportunities that will allow them to engage with the entire community in order to make a broader impact.

Civic participation is critical to MBEs as their dedication goes beyond economic success. If we are to improve the government's ability to advance community conditions capable of deterring civil injustices and targeting of our law enforcement officers, then our federal response must be guided by interagency collaboration, law enforcement understanding, public investment, and a sense of urgency.

The findings of this report raise questions about the current and future state of economic development in the U.S., in particular as the population moves inexorably to 'majority-minority' status. It also points out implications for the Nation's economic health should MBEs not have the opportunity to fully participate in government contracting.

During the past 45 years, MBDA has provided MBEs with resources to support and advance their success in growing the U.S. economy. Today, many MBEs have proven to be major catalysts for economic growth, job creation, innovation, and entrepreneurship. Due to our unique position, MBDA has distinct insight regarding current civil unrest issues that plague these communities, which historically have benefited from the Agency's funding and resources. This long-term engagement has helped MBDA to identify promising business opportunities that create jobs and generate wealth.

Since 2009, MBDA has helped minority-owned firms access more than \$34.8 billion in contracts and capital, which resulted in more than 153,000 jobs created and retained.\*

We know that there is more to do. This report is presented for full consideration by corporate CEOs and boards of directors, governors, state/local legislators, mayors, tribal leaders, law enforcement/criminal justice and economic development leaders, procurement officers, transportation and infrastructure officials, business owners, and pension fund managers and investors, in the spirit of generating positive momentum toward the goal of shrinking, and ultimately eliminating, disparities in contracting nationwide.

We encourage you to read the full report which covers the legal framework of disparity studies and offers a primer for those embarking upon disparity studies at the state and local levels. It also offers an in depth quantitative analysis of disparity ratios and a qualitative review of anecdotal evidence. Our hope is that this report will give policy makers and MBE advocates the information and data they need to make systemic changes.



**Alejandra Y. Castillo**  
National Director  
Minority Business Development Agency  
U.S. Department of Commerce



**Albert Shen**  
National Deputy Director  
Minority Business Development Agency  
U.S. Department of Commerce

*\*U.S. Department of Commerce, Minority Business Development Agency performance and CRM systems, Retrieved December 12, 2016.*

# Executive Summary

Analysis of public contracting data indicates that substantial disparities exist between minority and non-minority business enterprises. Specifically, the data show that minority business enterprises (MBEs) typically secure a lower number and dollar amount of contracts in proportion to the number of available MBEs in a relevant market. As a result, MBEs, agency officials, policy makers, and advocates have a strong incentive to understand the factors that give rise to observed contracting disparities. In order to advance the dialogue concerning contracting disparities and inform the development of new and innovative solutions, the Minority Business Development Agency (MBDA) requested a comprehensive review of existing data and studies to address several key research questions:

- What factors create barriers and cause disparities in public contracting for MBEs?
- What information do existing studies provide stakeholders in assisting agencies address observed disparities?
- What areas warrant further investigation and policy research with respect to contracting disparities experienced by MBEs?

This research explored existing disparity studies conducted by a variety of economic consultants that were commissioned by local and state governments nationwide. A disparity study is a comprehensive effort that analyzes a wealth of data pertaining to the legal, legislative, and contracting environment facing MBEs in a particular jurisdiction or when procuring contracts from a specific federal, state or municipal agency. The findings presented in this report are drawn from a comprehensive review of 100 disparity studies, summaries, and reports that are publicly-available and accessible via the internet. The selected set of disparity studies does not represent the full universe of studies and includes a greater focus on recent studies with information on contracting disparities affecting MBEs within the last ten years.

## LEGAL PRECEDENT AND DISPARITY STUDY BASICS

The evolution and development of disparity studies arose from legal challenges to existing affirmative action or race-conscious programs<sup>1</sup> enacted by government rules, legislation or policies intended to alleviate perceived or actual discrimination against different racial, ethnic or

---

<sup>1</sup> This report uses the terms "affirmative action programs," "race-based programs," and "race-conscious programs" interchangeably, where the terms imply a government initiated program that specifically includes racial or ethnic preferences in alleviating discriminatory behavior.



gender groups in public contracting. In response to the legal precedent,<sup>2</sup> government agencies have commissioned disparity studies to examine the extent to which minority contractors are underutilized in public procurement in a particular industry and geography, such that the agency can determine whether a legally-defensible race-conscious program is justified or needed to provide remedial relief given discriminatory or exclusionary behavior.

Disparity studies typically include an overview of the legal precedent that influences the key methodologies, computations, and evidence necessary to justify or support existing or proposed contracting programs, including those that are race-conscious. *City of Richmond v. J.A. Croson Co.*<sup>3</sup> (*Croson*) and *Adarand Constructors Inc. v. Peña*<sup>4</sup> (*Adarand*) are two seminal legal decisions that established the evidentiary tests necessary to evaluate local, state, and federal race-conscious contracting programs. These cases introduced several key concepts and standards, including:

- Ensuring that disparities in contracting are specific to the relevant geographic and product markets;
- Disparities are evaluated considering only firms that are ready, willing and able to bid on and perform contracts;
- The importance of evidence related to marketplace discrimination to support race-conscious contracting programs; and
- The importance of anecdotal evidence in supporting programs offering remedial relief of discrimination in public contracting.

There have been a number of additional challenges to existing race-conscious contracting programs. While the constitutionality of programs has been upheld, the legal decisions have often brought forth key issues related to disparity study methodologies and the evidence needed to support an inference of discrimination related to an observed disparity ratio.

In addition to the legal review, disparity studies typically include an overview of the rules, regulations, and ordinances that govern public contracting for a particular agency. This includes the existence of race-conscious programs to alleviate contracting disparities. In order to determine the extent to which disparities exist among MBEs and different racial and ethnic groups, disparity studies compute numerical disparity ratios using agency procurement data, information on winning bidders, and a comprehensive analysis of actual and potential bidders to determine which firms are ready, willing, and able to bid on contracts. Consultants use this information to determine utilization and availability, the two inputs of the disparity ratio calculation. Figure ES-1 shows a simplified illustration of the disparity ratio calculation, where

---

<sup>2</sup> *City of Richmond v. J.A. Croson Co.* (488 US 469 (1989)) and *Adarand Constructors Inc. v. Peña* (515 US 200 (1995)) are two seminal legal decisions that established the evidentiary tests necessary to evaluate local, state, and federal race-conscious contracting programs.

<sup>3</sup> 488 US 469 (1989).

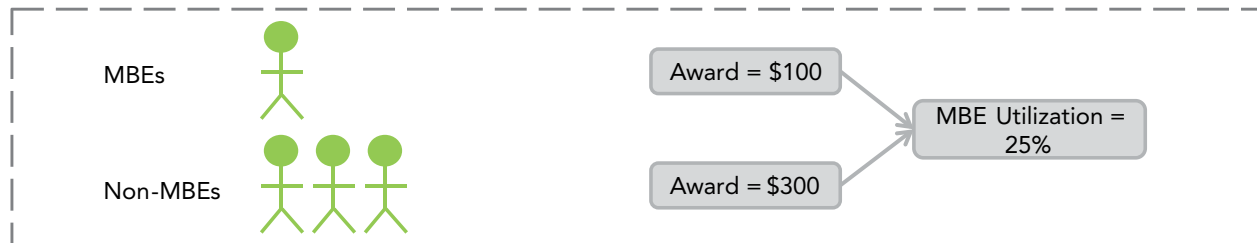
<sup>4</sup> 515 US 200 (1995).

the numerator represents the utilization of MBEs and the denominator shows the availability of MBEs.<sup>5</sup>

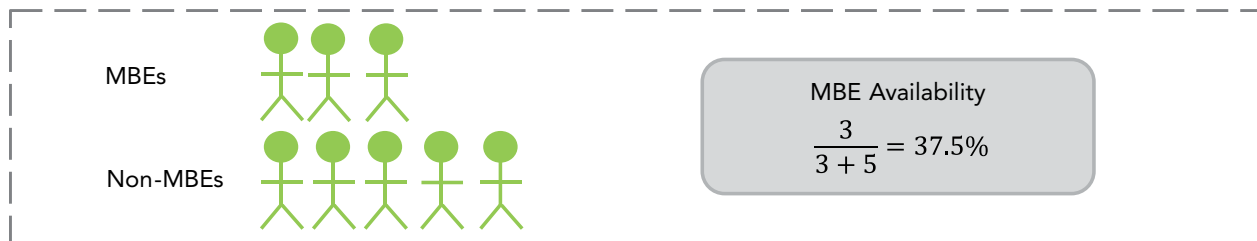
FIGURE ES-1

## DISPARITY RATIO COMPUTATION EXAMPLE

### UTILIZATION CALCULATION



### AVAILABILITY CALCULATION



$$\text{Disparity Ratio} = \frac{\text{Utilization}}{\text{Availability}} = \frac{25\%}{37.5\%} = 0.67$$

As a general rule of thumb, a disparity ratio of less than 0.80 (or 80 if expressed on a scale that multiplies the disparity index by 100) indicates a substantial disparity.<sup>6</sup> Utilization and availability are also specific to well defined geographic and product markets (i.e., the “relevant markets”). Market definition is an economic concept that looks to substitutability and is intended to determine who is competing for public contracts along geographic and product lines. Robust and defensible disparity studies have an explicit definition of both geographic and product markets, as these are required in order to determine who is competing for contracts and the extent to which disparities exist among these market definitions.

## DISPARITIES EXIST

The review of selected disparity studies provided 2,385 distinct high-level disparity ratios presented in executive summaries, major findings, and conclusions sections. These ratios include observations for MBEs in the aggregate, as well as for the African American, Hispanic

<sup>5</sup> This simplified example assumes uniform contract and firm sizes, such that the disparity ratio would be equivalent whether one considers utilization based on the number of contracts or dollars awarded per contract.

<sup>6</sup> Given the lack of standardization in evaluating the levels of underutilization, many studies employ the Equal Employment Opportunity Commission’s (EEOC) “80 percent rule” in *Uniform Guidelines on Employee Selection Procedures*. In the context of employment discrimination, an employment disparity ratio below 80 indicates a “substantial disparity” in employment.

American and Asian American categories.<sup>7</sup> In addition, studies computed disparity ratios based on industry, with the majority reporting disparity ratios for major industry groups such as construction, professional services, architecture and engineering services, and goods and supplies. However, there is no standard disparity ratio reporting method and a review of the disparity studies found wide variation in how disparity authors computed and reported disparity ratios. Some studies included a single disparity ratio covering multiple years, while others reported ratios for every calendar year or fiscal year for the time period under investigation. Furthermore, some studies only reported disparity ratios on prime contracts, while other studies distinguished between prime contracts and subcontracts.

As a result, the disparity ratios are not an “apples to apples” comparison when examining results from one report compared to another. The studies were conducted by different authors, for different agencies, using different product and geographic market definitions and for different time periods. In addition, there are methodological differences in computing disparity ratios among consultants. Nevertheless, the comprehensive nature of the review established a distinct pattern of substantial contracting disparities for MBEs in the aggregate and for different racial and ethnic groups across different industries. 78.2 percent of all disparity ratios drawn from the set of disparity studies were less than 0.8, with a median value of 0.19. Considering that less than 0.8 is a substantial disparity, these results indicate that contracting disparities for MBEs are pervasive.

Furthermore, many studies tested whether these disparity ratios were statistically significant, where disparity study authors used statistical approaches to test whether the disparity could have arisen due to chance, or some other factor such as discrimination. For those disparity studies that explicitly indicated whether a disparity ratio was statistically significant or not, approximately 65 percent of all disparity ratio observations were classified as statistically significant by the study authors. However, this may be a conservative estimate since some disparity study consultants only reported significance at a highly aggregated level. Lastly, 99 percent of statistically significant disparities identified by study authors were less than 0.8, lending strong support for discriminatory behavior in contracting.

Despite the detail regarding underrepresentation presented in disparity calculations, the existence of a disparity does not on its own support a conclusion of discrimination. Rather, the numerical disparity ratios necessitate additional inquiries to explain *why* MBEs face significant

---

<sup>7</sup> This does not represent the totality of disparity ratios reported in the 100 studies. In certain cases, disparity study consultants also included Native Americans and Subcontinent Asian Americans, but these instances were relatively few or often contained inadequate data to compute a disparity ratio. In addition, most studies reported disparity ratios for women-owned businesses, although differences existed with respect to approaches separating out Caucasian-owned WBEs versus non-Caucasian owned WBEs. Furthermore, some studies reported an aggregate M/WBE disparity ratio, as opposed to just an MBE disparity ratio. The results presented in this report include the combined M/WBE ratios, but do not include WBE-only disparity ratios. Lastly, many studies provided hundreds of different additional disparity ratios based on smaller geographic regions, combining across industries, looking at different funding sources, or looking at different time periods. In order to minimize double counting, the research findings in this study do not include the subset of disparity ratios based on the multiple iterations that some disparity study consultants performed. The primary purpose of the disparity ratio review was to demonstrate that these studies identified contracting disparities, sufficient to assess causal factors.

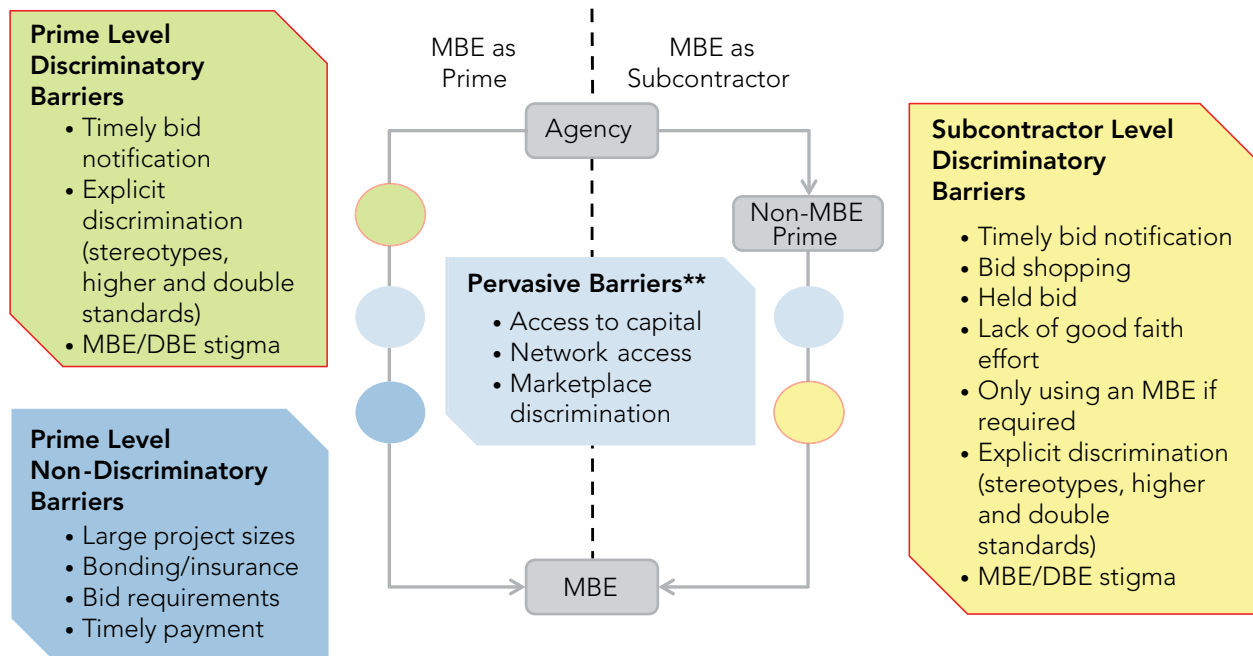
contracting disparities compared to non-MBEs. In order to determine whether disparities are the result of discrimination, disparity study consultants use both quantitative and qualitative analyses to examine the root causes of disparities in public contracting. Most studies in the research set included an analysis of marketplace discrimination, using regression analysis to investigate disparities in business formation, business earnings, and loan denials between MBEs and non-MBEs in the private sector. These analyses demonstrate the presence of discriminatory behavior in private markets by showing race as a statistically significant predictor of disparities in business owner earnings, business formation and access to capital. As a result, these analyses allow disparity studies to address whether or not public agencies were susceptible to or engaging in passive discrimination in public contracting.

## **USING ANECDOTAL EVIDENCE TO EXPLORE CONTRACTING BARRIERS AND CAUSES**

Anecdotal evidence does not establish the predicate for race-conscious programs, but instead, aids policymakers in evaluating whether a contracting program is needed and narrowly tailored to address demonstrated discriminatory behavior. Anecdotal evidence provides first-hand accounts of barriers in public contracting and instances where discrimination is a factor in MBE underrepresentation. Critics of the validity of anecdotal evidence argue that the accounts may not be sufficiently verified and that instead of detailing actual accounts of discrimination, the evidence may only present perceptions of discrimination. Yet, legal proceedings have varied on the level of verification needed to support the importance and relevance of anecdotal evidence. In order to address these concerns, the most robust disparity studies will draw on multiple techniques to obtain anecdotal accounts from individuals that have had actual, verifiable experiences in working with a procurement agency. It is through a wide number of reliable sources that disparity studies can include instances of discrimination which are representative of the experiences of multiple minority business owners.

The disparity studies reviewed for this study provided specific, verifiable instances of discrimination which were recorded, cataloged, and analyzed using content analysis. The most robust studies identified barriers, discussed the harm that the improper conduct inflicted on the businesses in question, and examined the extent to which discriminatory exclusion and impaired contracting opportunities are systemic rather than isolated or sporadic. Figure ES-2 summarizes the most frequently cited barriers in the disparity studies.

FIGURE ES-2  
**MOST FREQUENTLY CITED CONTRACTING BARRIERS FACING MBES**



*\*\*Access to Capital and Network Access barriers can arise due to both discriminatory and non-discriminatory reasons and also influence non-discriminatory barriers such as bonding and insurance*

Discrimination influenced multiple contracting barriers, both from the marketplace, as well as driven by either a contracting agency or non-MBE prime in the context of subcontracting. The barriers identified varied from outright prejudicial treatment and instances of exclusion based on racism, to marketplace barriers erected by systemic discrimination in both the private and public market (e.g., access to capital). Disparity studies with substantial anecdotal evidence supporting the presence of discriminatory barriers provide justification for the use of race-conscious programs in those jurisdictions. In addition, there are multiple non-discriminatory barriers, such as large project sizes, timely payment, and bid requirements that present challenges to potential bidders regardless of the race or ethnicity of the owners. However, the anecdotal evidence indicates that certain systemic discriminatory barriers can influence the perception of exclusionary practices with respect to some non-discriminatory barriers.

Arguably the most difficult barrier to address with respect to discrimination is the exclusionary networks that MBEs encountered in public contracting. On one hand, network exclusion can arise due to normal business operating procedures, often dictated by the desire to work with companies that have prior experience, demonstrated work product, and a solid reputation. Yet, in other instances, discriminatory attitudes of agency personnel and non-MBE primes facilitated excluding MBEs from informal networks that influence learning about and obtaining public contracting opportunities.

The review of existing disparity studies yielded several common themes and insights beyond the characterization of contracting barriers and evidence of discrimination. These included:

- The “needle has not moved” with respect to overcoming disparities. Every study identified significant contracting disparities and many supported these findings with additional quantitative and anecdotal evidence that supported the need for both race-neutral and race-conscious remedial efforts. Yet, over time disparities were prevalent even within the same jurisdiction.
- Disparity studies often reported the same race-neutral remedies (e.g., unbundling large contracts, improving payment processes, improving data collection) and race-conscious remedies (e.g., improved goal setting and monitoring) to address contracting disparities, yet what is missing is the extent to which agencies have actually implemented and measured the success or failure of these recommendations.
- Race-conscious programs typically helped MBEs when enacted; however the legal history has illustrated that these programs need to comply with the strict scrutiny standard and be narrowly tailored.

In addition to common observations, the disparity studies and anecdotal evidence highlighted common problems and issues with contracting disparities experienced by MBEs. These include:

- Enforcement and accountability of race-conscious programs by contracting agencies. There is a perception that prime contractors do not engage in good faith efforts to comply with race-conscious programs and agencies do not monitor or enforce these efforts.<sup>8</sup>
- Resource constraints are a major issue facing contracting agencies. Many suggestions for program improvements, both race-neutral and race-conscious, require a substantial monetary investment (both human capital and infrastructure) at the public agency level. Based on the political and economic environment, some of these recommendations are prohibitive given lack of resources.
- There is often insufficient analysis and evidence of subcontracting activity at the agency level. Given that subcontracting is an important and critical component of increasing MBE participation in public contracting, greater oversight and accountability of subcontracting behavior coupled with better and more reliable data collection should be a priority

The disparity study review indicated that both discriminatory and non-discriminatory actions lead to contracting disparities for MBEs. Additional research is needed to understand what steps public agencies have taken to address these disparities. Specifically, whether agencies have been effective at implementing the common policy prescriptions most disparity studies include and to what extent these policies have either succeeded or failed. Beyond this, there are a number of areas to explore and research with respect to lessening barriers faced by

---

<sup>8</sup> Numerous disparity studies included anecdotal accounts which touted the belief that without a race-conscious program in place, prime contractors would never use an MBE.

MBEs in public contracting. MBEs, advocacy groups and policy makers should explore new and innovative ways to increase engagement, oversight, enforceability and accountability within the public contracting process. This requires leveraging data sharing and transparency, exploring race-neutral means and the efficacy of these means, and also evaluating what race-conscious methods have been not only defensible, but successful, in alleviating the effects of discrimination.

# Table of Contents

<b>Foreword</b> .....	i
<b>Executive Summary</b> .....	iii
<b>Table of Contents</b> .....	xi
<b>List of Figures</b> .....	xii
<b>List of Tables</b> .....	xiii
<b>Acknowledgements</b> .....	xv
<b>1. Introduction</b> .....	1
<b>2. Legal Review</b> .....	5
Seminal Cases – Croson and Adarand .....	6
Concrete Works of Colorado .....	8
Western States Paving .....	8
Rothe and DynaLantic .....	9
<b>3. Disparity Study Basics</b> .....	11
General Overview of Disparity Studies .....	12
Critical and Often Contentious Issues .....	21
Importance of Anecdotal Information .....	28
<b>4. Disparities and Marketplace Discrimination Exist</b> .....	31
Description of the Set of Disparity Studies .....	31
Observed Disparities in Minority Contracting .....	34
Subcontracting Analysis .....	38
Quantitative Data on Marketplace Discrimination .....	40
<b>5. Anecdotal Analysis and Summary</b> .....	47
Importance of Anecdotal Evidence in Supporting Race-Based Programs .....	47
Disparity Study Review Findings on Collection Methods .....	48
Characterizing Barriers Identified in Existing Disparity Studies .....	52
Networking Barriers .....	55
Process-Based Barriers .....	57
Discriminatory Attitudes and Perceptions .....	63
Barriers Affecting Firm Financial Performance and Ability to Compete .....	67
<b>6. Reserach Findings</b> .....	69
There is a Need for Innovative Policies .....	71
<b>Appendix A – List of Disparity Studies (Chronological)</b> .....	75
<b>Appendix B – Glossary</b> .....	83



# List of Figures

Figure ES-1. Disparity Ratio Computation Example.....	v
Figure ES-2. Most Frequently Cited Contracting Barriers Facing MBEs .....	viii
Figure 2-1. Timeline of Key Legal Cases by Decision Date .....	6
Figure 2-2. Key Holdings in <i>Croson</i> and <i>Adarand</i> .....	7
Figure 2-3. Key Holdings in the <i>Rothe</i> and <i>DynaLantic</i> Cases .....	10
Figure 3-1. Legal Review and Requirements for Disparity Studies .....	12
Figure 3-2. Key Components of Procurement Data Analysis .....	13
Figure 3-3. Utilization Example using Contract Awards .....	15
Figure 3-4. Methodologies for Calculating Availability and Disparity Indices .....	16
Figure 3-5. Disparity Computation Example.....	17
Figure 3-6. Discrimination Assessment Analysis Summary .....	19
Figure 3-7. Evaluation and Recommendation Foci.....	21
Figure 3-8. Capacity Sensitivity Example.....	24
Figure 4-1. Disparity Ratio Distribution for Minority-Owned Businesses.....	35
Figure 4-2. Disparity Ratio Observations by Industry and Minority Category .....	36
Figure 4-3. Regression Analysis Process and Results Example.....	43
Figure 5-1. Distribution of Anecdotal Data Collection Mechanisms.....	49
Figure 5-2. Barriers Faced by MBEs in Public Contracting .....	53
Figure 5-3. Frequency of Barriers Identified by M/WBEs.....	55
Figure 5-4. Example of Bid Shopping.....	62

## List of Tables

Table 4-1 Disparity Ratio Observations by Minority Category and Industry .....	37
Table 4-2 Median Disparity Ratios by Minority Category and Industry .....	38
Table 4-3 Subcontracting Subset Analysis.....	40
Table 5-1 Summary of Anecdotal Evidence Collection Methods.....	50



## Acknowledgements

This research report would not have been possible without the support, guidance and direction provided by Minority Business Development Agency (MBDA) personnel and stakeholders. As the scope and direction of the research project shifted to focus on key issues facing minority business enterprises in public contracting, the MBDA team was helpful in identifying the key issues it sought to explore and understand as a result of this research effort. The research team wishes to acknowledge the insight, guidance and direction provided by Bridget Gonzales, Antavia Grimsley, Josephine Arnold, Efrain Gonzalez, Jr., Albert Shen, and Justin Tanner. In addition, the research team is grateful to David Beede and Dr. Rob Rubinovitz, from the Office of the Chief Economist at the United States Department of Commerce, for their contributions. Lastly, the research team would like to thank our peer reviewers, who provided valuable commentary that helped focus our research findings as we strived to assist MBDA, stakeholders, and elected officials address key issues in public contracting.



## CHAPTER 1:

# Introduction

Analysis of public contracting data indicates that disparities exist in contracting activity between minority and non-minority business enterprises. Specifically, the data show that minority business enterprises (MBEs) typically secure a lower number and dollar amount of contracts in proportion to the number of MBEs that are available in the marketplace to bid on and perform contract work. In response, the Federal Government, state agencies, and local municipalities have enacted a number of affirmative action, or race-conscious,<sup>9</sup> programs designed to overcome both the perception and reality of discrimination against MBEs. The proliferation of these programs led to an increase in the number of legal challenges to them. As a result, the various legal challenges and court decisions provide a foundation for “disparity studies” that assess and provide the basis for race-conscious programs.

Government agencies at the federal, state, and local level typically commission disparity studies to examine the extent to which minority and women contractors are underutilized in public procurement. Well-conducted disparity studies not only present information on actual contracting disparities experienced by MBEs in a particular industry and geographic region, but also facilitate an investigation into the extent to which discrimination is a prevalent issue in the marketplace. In fact, the need for disparity studies often arises out of legal challenges to existing programs, and the results of such studies can have broad application to a number of other agency programs. Thus even if an agency is not experiencing litigation, it will be well informed to ensure its existing or potential program complies with legal precedent.

Given evidence of disparities in existing studies, MBEs, agency officials, policy makers, and advocates have a strong incentive to understand the factors that give rise to observed contracting disparities. In order to advance the dialogue concerning contracting disparities and inform the development of new and innovative solutions, the Minority Business Development Agency (MBDA) requested a comprehensive review of existing data and studies to address several key research questions:

- What factors create barriers and cause disparities in public contracting for MBEs?
- What information do existing studies provide stakeholders in assisting agencies address observed disparities?

---

<sup>9</sup> This report uses the terms “affirmative action programs,” “race-based programs,” and “race-conscious programs” interchangeably, where the terms imply a government initiated program that specifically includes racial or ethnic preferences in alleviating discriminatory behavior against affected racial or ethnic minority business enterprises in public contracting.

- What areas warrant further investigation and policy research with respect to contracting disparities experienced by MBEs?

To address these questions, a comprehensive review of publicly-available disparity studies, summaries, and reports was conducted. The review of existing disparity studies includes a high-level inventory of observed disparity ratios coupled with a qualitative review of the anecdotal evidence presented in each disparity study that provides insight into causal factors for observed numerical disparities.

Anecdotal evidence offers human experience and context for quantitative evidence such as disparity calculations and regression analyses. Anecdotal evidence has also proven to be one of the most important elements in evaluating potential discriminatory behavior and barriers to minority-owned firms in public contracting. As a result, many disparity studies use qualitative data to help address the fundamental questions of “why do disparities exist in public contracting?” and perhaps more importantly, “why do disparities continue to exist in public contracting despite the presence of many race-based contracting programs?” The collection and analysis of this qualitative data provides a basis for challenging the status quo of pervasive contracting disparities by helping advance the discussion with a focus on their key drivers.

This report begins with an overview of several legal challenges to race-conscious remedial contracting programs. The legal precedent and case law informs the analyses contained in disparity studies, such that accumulated evidence is either sufficient to justify remedial race-based action, or alternatively, evaluate other means to address any identified contracting disparities. Chapter 3 details the basics of disparity studies, guided in part by the legal challenges and findings discussed in Chapter 2. While not every disparity study adheres to the same format or level of detail, each study generally covers a number of critical elements, including analysis of applicable laws, regulations and ordinances, a description of contracting data and sources, utilization and availability analyses, computing disparity ratios, exploring third-party data sources on discrimination, collection and reporting of anecdotal evidence, and when appropriate, evaluation of existing race-based contracting programs.

Chapter 4 presents a summary of disparity ratios drawn from the selected set of disparity studies, summaries, and reports, which indicate widespread disparities in public contracting for the jurisdictions and time periods covered by each study. Identification of potential disparity studies entailed a thorough and comprehensive search of publicly-available studies posted on agency, consultant, or other websites. A special focus was on disparity studies published in the last ten years, to provide more recent insight into the public contracting landscape for MBEs. As such, it is important to recognize that the selected set of disparity studies, summaries and reports do not represent the universe of all disparity studies and are not intended to serve as a nationally representative, statistically significant sample of all disparity studies conducted. Rather, the set of disparity studies, summaries and reports represent studies that are publicly-available and accessible via the internet and this report did not exclude any identified studies,

summaries or reports. Chapter 4 also summarizes general findings from quantitative analyses disparity study authors conducted with respect to analyzing marketplace discrimination.

Chapter 5 details the use of anecdotal evidence in disparity studies to help provide insight into the different barriers MBEs face in public contracting. The chapter includes an overview of the major barriers identified by disparity studies, with a particular focus on whether these barriers are largely the result of discrimination or other factors. Chapter 6 provides conclusions and recommendations for future research and discussion. The conclusion also includes potential action items for addressing contracting disparities experienced by MBEs in public contracting. Lastly, Appendix A includes a list of the publicly-available disparity studies, summaries and reports identified and reviewed as part of this research project, while Appendix B contains a glossary of terms that are commonly used in disparity studies.





## CHAPTER 2:

# Legal Review

Legal challenges to race-conscious contracting programs provide insight and guidance on evaluating the evidence needed to identify and characterize discriminatory behavior in public contracting. This chapter reviews the general legal framework of disparity studies, focusing on a review of several key legal challenges to federal, state, or local contracting programs regarding minority-owned businesses. The purpose of this chapter is not to advocate, condone or recommend any legal conclusions drawn from the case law. Rather, the intent of this chapter is to provide information on how legal precedent influences the analysis of contracting disparities affecting minority business enterprises at the federal, state, or local level.<sup>10</sup> This includes investigating how legal precedent and court proceedings:

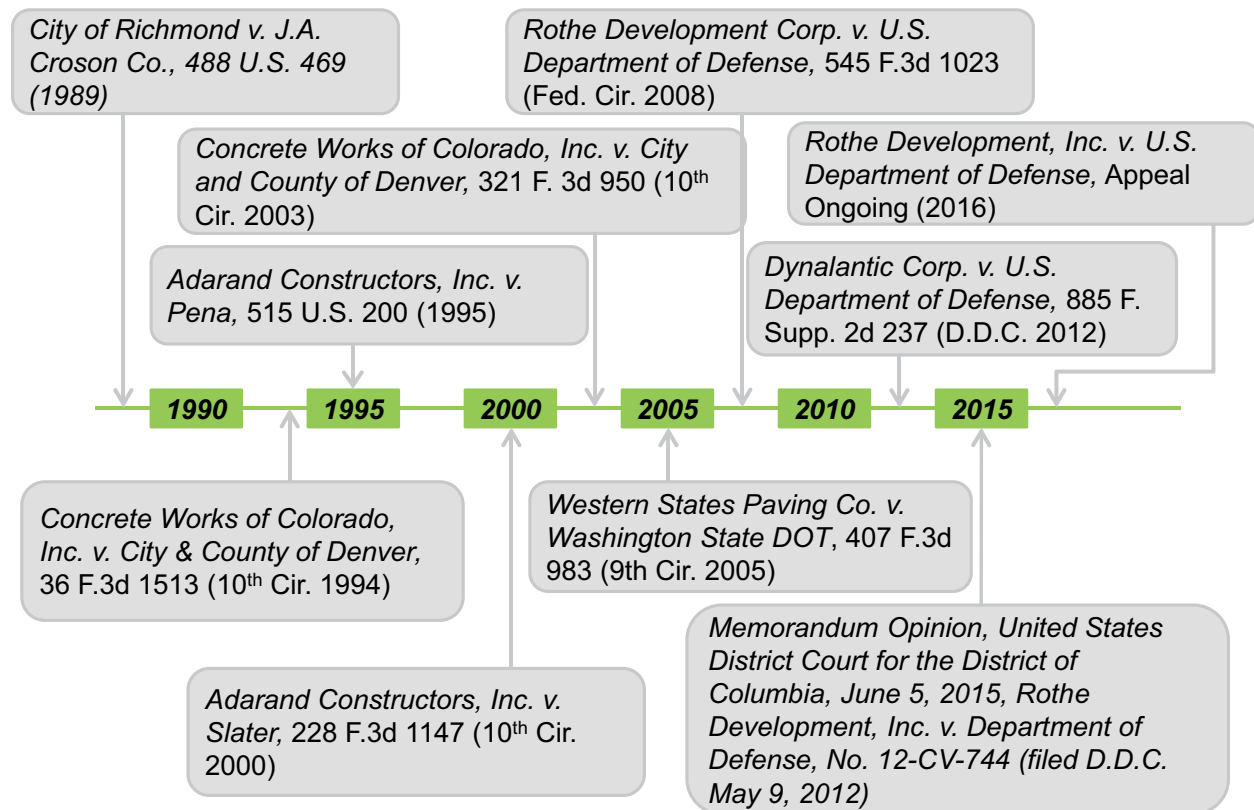
- Determine the evidentiary tests for assessing existing race-based contracting programs for disadvantaged, minority, women, or small business enterprises;
- Define parameters for evaluating potential disparities in contracting;
- Stress the importance of anecdotal evidence to investigate causes of disparities.

Figure 2-1 is a timeline of several key legal decisions that provide insight into these issues. Although a full legal history includes numerous additional cases, these ten decisions capture elements of legal challenges and disparity analyses that have broad applicability to assessing potential discrimination and use of race-conscious programs in public contracting across multiple industries and jurisdictions.

---

<sup>10</sup> Most disparity studies include a comprehensive legal overview as part of the report, often with a longer and more in-depth discussion attached as an Appendix to the main report. For a general legal review, see *Connecticut Disparity Study: Phase 1*, The Connecticut Academy of Science and Engineering, August 2013. For a substantially more in-depth and contemporaneous review of legal precedent see *2015-16 State of Indiana Disparity Study*, BBC Research & Consulting, March 2016.

FIGURE 2-1

**TIMELINE OF KEY LEGAL CASES BY DECISION DATE****SEMINAL CASES – CROSON AND ADARAND**

*City of Richmond v. J.A. Croson Co.*<sup>11</sup> (Croson) and *Adarand Constructors Inc. v. Peña*<sup>12</sup> (Adarand) are two seminal legal decisions that established the evidentiary tests necessary to evaluate local, state, and federal race-conscious contracting programs. Figure 2-2 presents an overview of key legal holdings in each case. Included in this summary is *Adarand VII*,<sup>13</sup> which was the Tenth Circuit Court of Appeals decision following remand of the case.

<sup>11</sup> 488 US 469 (1989).

<sup>12</sup> 515 US 200 (1995).

<sup>13</sup> *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10<sup>th</sup> Cir. 2000)

FIGURE 2-2  
KEY HOLDINGS IN **CROSON** AND **ADARAND**

**Key Holdings in Croson:**

- Strict scrutiny is the appropriate standard of judicial review, such that a race conscious program must be based on a compelling governmental interest in remedying past discrimination or its present effects and be narrowly tailored to achieve its objectives
- Ruled in Croson's favor : the evidence did not pass strict scrutiny because the program was applied regardless of whether the individual MBE had suffered discrimination.
  - Must be evidence of race-based discrimination for each individual group that is granted racial, ethnic or gender preferences
  - Programs must focus on ready, willing and able contractors in determining disparities
  - Anecdotal evidence of discrimination, in conjunction with statistical evidence, supports the local government's use of broader remedial relief (e.g., race-based)

**Key Holdings in Adarand and Adarand VII**

- *Adarand* extended application of strict scrutiny standard to federal programs
- *Adarand VII* found that Congress had a compelling interest, key sources of evidence were:
  - Analysis of disparities in earnings, commercial loan denial rates, and declining participation of MBEs after removal of race-conscious programs
- Post-*Adarand*, Congress revised the federal disadvantaged business enterprise (DBE) program to include key *Adarand* findings, including language on ready, willing and able contractor data to determine disparities.

*Croson* continues to impact considerations of race-conscious contracting programs. First, *Croson* established that a local government could not rely on society-wide discrimination as the basis for a race-based program but, instead, was required to identify discrimination within the local jurisdiction. Second, the case highlighted the need to present evidence grounded in statistical analysis to justify the presence of discriminatory behavior. This includes evaluation of ready, willing and able contractors when determining disparities. This evaluation is the backbone of determining "available" businesses to use in computing disparity ratios, such that the focus of any contracting program is narrowly tailored to affected businesses.

In contrast, the City of Richmond examined population figures to determine its race-conscious contracting goal, without considering whether the goal reflected the demographic make-up of contractors that could actually perform the contracted work. An important outcome was the Court declaration regarding the utility of anecdotal evidence as supporting and causal information related to the quantitative analyses. The U.S. Supreme Court noted that anecdotal evidence of discriminatory acts, when used in conjunction with statistical evidence, lends support to broader remedial relief.

*Adarand* extended the strict scrutiny standard to federal programs, including the federal DBE program related to use of U.S. Department of Transportation (DOT) funds by states and municipalities. *Adarand VII* provided distinct areas for disparity consultants to investigate and compile results that support the institution of race-conscious programs. Most of the

disparity studies reviewed in this research contained both quantitative and qualitative analyses investigating the issues explicitly discussed in *Adarand VII*.

## CONCRETE WORKS OF COLORADO

*Concrete Works of Colorado, Inc. v. City & County of Denver* is a notable case involving a challenge to municipality-enforced minority contracting programs.<sup>14</sup> This case is important for two reasons: first, it set the state and local standard for how courts evaluate *compelling interest* with respect to race-preference programs. An inference of discrimination, not proof, was acceptable for a government entity to justify a *compelling interest* in remediating discrimination. Also, it placed the ultimate burden of proving a program's unconstitutionality on the plaintiff. Second, this was the first local minority business program upheld after the merits of a full trial.<sup>15</sup> Third, the case noted that anecdotal testimony revealed behavior that was not merely "sophomoric or insensitive, but which resulted in real economic or physical harm."<sup>16</sup> The City and County of Denver provided credible witnesses who testified to witnessing discriminatory treatment motivated by race or gender.<sup>17</sup>

## WESTERN STATES PAVING

*Adarand* challenged the implementation of the federal DBE program, as enacted by Title 49 Code of Federal Regulations (CFR) Part 26. Since the initial constitutional challenge filed by *Adarand*, there have been a number of legal challenges with respect to State DOT implementation of the federal DBE program. Although this report does not include a comprehensive review of every challenge to DBE programs, it is important to recognize that the legal history of these cases not only provides guidance to state DOTs implementing programs to meet the concept of narrowly tailored, but also provides guidance with respect to the types of evidence necessary to establish race-based programs and how to narrowly tailor those programs.

<sup>14</sup> *Concrete Works of Colorado, Inc. v. City & County of Denver Colorado*, 36 F. 3d 1513 (10<sup>th</sup> Cir. 1994) and *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F. 3d 950 (10<sup>th</sup> Cir. 2003) (*Concrete Works IV*).

<sup>15</sup> Connecticut State Disparity Study, conducted by the Connecticut Academy of Science and Engineering, Phase I, 2013. After a lengthy legal history, the Tenth Circuit Court of Appeals ruled in favor of Denver, noting that Denver did not hold the burden of proving the existence of discrimination, rather it only had to demonstrate strong evidence of discrimination in the market to justify the race- and gender-based remedial contracting programs (i.e., goals).

<sup>16</sup> *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F. 3d 950 (10<sup>th</sup> Cir. 2003).

<sup>17</sup> The Court noted: "After considering Denver's anecdotal evidence, the district court found that the evidence "shows that race, ethnicity and gender affect the construction industry and those who work in it" and that the egregious mistreatment of minority and women employees "had direct financial consequences" on construction firms. *Id.* at 989, quoting *Concrete Works III*, 86 F. Supp.2d at 1074, 1073. Based on the district court's findings regarding Denver's anecdotal evidence and its review of the record, the court concluded that the anecdotal evidence provided persuasive, un rebutted support for Denver's initial burden. *Id.* at 989-90, citing *Int'l Bhd. of Teamsters v. United States*, 431 U.S. 324, 339 (1977) (concluding that anecdotal evidence presented in a pattern or practice discrimination case was persuasive because it "brought the cold [statistics] convincingly to life"). (emphasis added)

While ongoing litigation pertaining to state DOT implementation of federal DBE programs exists as of the date of this report, the constitutionality of the federal DBE program has been upheld in past proceedings. However, in *Western States Paving Co. v. Washington State DOT* (*Western States Paving*),<sup>18</sup> the Ninth Circuit Court of Appeals found that although the State of Washington DOT DBE program was constitutionally sound (i.e., it met the strict scrutiny on its face), the program was not narrowly tailored. The main issue was the extent to which the State of Washington considered the capacity of ready, willing and able DBE contractors, where capacity represents a firm-level measure of whether a particular DBE contractor has the ability to fulfil the requirements of a particular contract (e.g., does it have the capacity to perform the contracted work such that it can be considered ready, willing and able to bid on the project). The Ninth Circuit found that the state had not adequately supported inclusion of capacity considerations in determining the availability of DBE firms.<sup>19</sup>

Further the Ninth Circuit determined that even where evidence of discrimination exists in a recipient's market, a narrowly tailored program can only apply to those minority groups who have actually suffered discrimination. Thus, under a race- or ethnicity-conscious program, for each of the minority groups to be included in any race- or ethnicity-conscious elements in a recipient's implementation of the federal DBE Program, there must be evidence that the minority group suffered discrimination within the recipient's marketplace.<sup>20</sup>

## ROTHE AND DYNALANTIC

Figure 2-1 highlighted a series of federal challenges to race-conscious contracting programs separate from the Federal DBE DOT challenges. Figure 2-3 summarizes key findings in legal decisions related to *Rothe Development Corporation* and *DynaLantic Corporation*. The initial *Rothe* case<sup>21</sup> involved a challenge to the Department of Defense's implementation of the Small Disadvantaged Businesses (SDB) program, while the *DynaLantic*<sup>22</sup> and second *Rothe* case<sup>23</sup> involved a challenge to the use of the 8(a) set-aside program.

<sup>18</sup> *Western States Paving Co. v. Washington State DOT*, 407 F.3d 983 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006)

<sup>19</sup> Chapter 3 covers the concept of availability in greater detail. However, the methods of determining what constitutes an "available" business for the purposes of analyzing disparities are often a significant point of contention among practitioners. In *Crosen*, the City of Richmond failed to analyze specific MBEs, focusing only on the population of minorities in the surrounding geographic area. As the Supreme Court noted, the appropriate standard is to look at the specific businesses that can compete for and execute contracts within the particular industry and location. These are the available businesses that should be considered in the disparity analysis.

<sup>20</sup> As a result of the 2005 *Western States Paving* decision, numerous states implementing the federal DBE program using race-conscious goals suspended existing programs to re-evaluate whether the programs were in compliance with the "narrowly tailored" requirements.

<sup>21</sup> *Rothe Development Corp. v. U.S. Department of Defense, et al.*, 545 F.3d 1023 (Fed. Cir. 2008)

<sup>22</sup> *DynaLantic Corp. v. U.S. Department of Defense*, 885 F.Supp. 2d 237 (D.D.C. 2012).

<sup>23</sup> Memorandum Opinion, United States District Court for the District of Columbia, June 5, 2015, *Rothe Development Corp. v. Department of Defense*, No. 12-CV-744 (filed D.D.C. May 9, 2012).

FIGURE 2-3  
KEY HOLDINGS IN THE *ROTHE* AND *DYNALANTIC* CASES

**Key Holdings in *Rothe* (2008 Federal Circuit Court of Appeals):**

- Despite disparity study results offered by the Department of Defense (DoD), there was no record regarding the studies' methodology before the federal circuit.
- Court rejected compelling interest argument because studies failed to account for relative capacity of firms.
- Court found that Congress did not have a strong basis in evidence before it to conclude that the Department of Defense (DoD) was a passive participant in racial discrimination in relevant markets across the country.

**Key Holdings in *DynaLantic***

- DynaLantic argued that the government did not provide sufficient evidence of prior race-based discrimination in contracting in the relevant market.
- The Court agreed, holding that while the 8(a) program was constitutional on its face, it was unconstitutional as implemented in DynaLantic's situation, as the government did not provide sufficient evidence that the discrimination in the relevant market negatively impacts contractors in that market.

**Key Holdings in *Rothe* (District Court of District of Columbia, 2015)**

- Rothe brought a facial challenge to the constitutionality of the 8(a) program.
- In the June 2015 ruling, the Court upheld the constitutionality of the program on its face.
- Rothe appealed, with hearings in March 2016 and a decision due later in 2016.

The first *Rothe* case dealt specifically with an issue regarding "relative capacity" which, similar to *Western States Paving*, involves the computation of firms that are ready, willing and able to bid and perform on particular contracts. Relative capacity arguments center around whether a particular firm can effectively bid on and handle multiple projects, or if the firm happened to win a project whether it could have the resources to bid on and perform the work required on subsequent contracting opportunities (i.e., would winning one contract stretch firm resources too thin to perform other contracts at the same time).

## CHAPTER 3

# Disparity Study Basics

Conducting a disparity study is a comprehensive undertaking designed to analyze and inform readers on the specific issues relevant to evaluating contracting behavior within a particular geographic and industry area. In general, the primary purpose for conducting a disparity study is to assess discrimination in public contracting when evaluating race- and gender-based government actions designed to alleviate discriminatory behavior. As a result, the typical disparity study covers multiple areas addressing the legal framework, applicable procurement laws and regulations, definition of markets, identification of relevant businesses, measuring the activity levels of the different businesses providing goods or services, utilizing independent third-party data analysis to explore discriminatory behavior, incorporating anecdotal evidence, and opining on the current state of existing race-neutral and race-conscious programs.

The central feature of a disparity study is a disparity analysis that determines the levels at which minority, women, or disadvantaged business enterprises are utilized on public contracts. These contracts can be at the federal, state, or local level and may encompass multiple industries. Assuming a fair and equitable system of contracting, one would expect that the proportion of contracts and contract dollar awards to minority, women or disadvantaged business enterprises should be relatively close to the corresponding proportion of minority, women, or disadvantaged business enterprises available to perform that work in the relevant market area.<sup>24</sup> In this respect, disparity studies seek to test whether observed differences are significant, such that inferences of discrimination support the observed disparities.

This section of the report focuses on explaining key components of the typical disparity study, including definitions of key terms, calculations, and methodologies.<sup>25</sup> A typical disparity study has the following components broken into five general areas:

1. Foundation/Background (legal analysis, applicable laws, regulations, rules)
2. Procurement Data and Analysis (market definition and utilization analysis)
3. Availability/Disparity Computations (availability assessment and disparity index computation)
4. Discrimination Assessment (statistical analyses, anecdotal evidence)
5. Evaluation & Recommendations (status of current programs, future goals and strategies)

<sup>24</sup> *Disparity Study: Metropolitan St. Louis Sewer District*, Mason Tillman Associates, December 2012. See the Introduction and p. 8-1 (as applied to subcontracts).

<sup>25</sup> In addition, Appendix B contains a glossary of terms common to many disparity studies.



The information presented in this chapter is drawn from the review of disparity studies, reports, and summaries, and represents the most frequently observed study components. As a result, each disparity study, or each consultant conducting a disparity study, may vary in approach to these general components as necessitated by the specifics of each investigation. This chapter begins with a brief overview of key study report sections, before discussing some of the more difficult and contentious topics in greater detail.

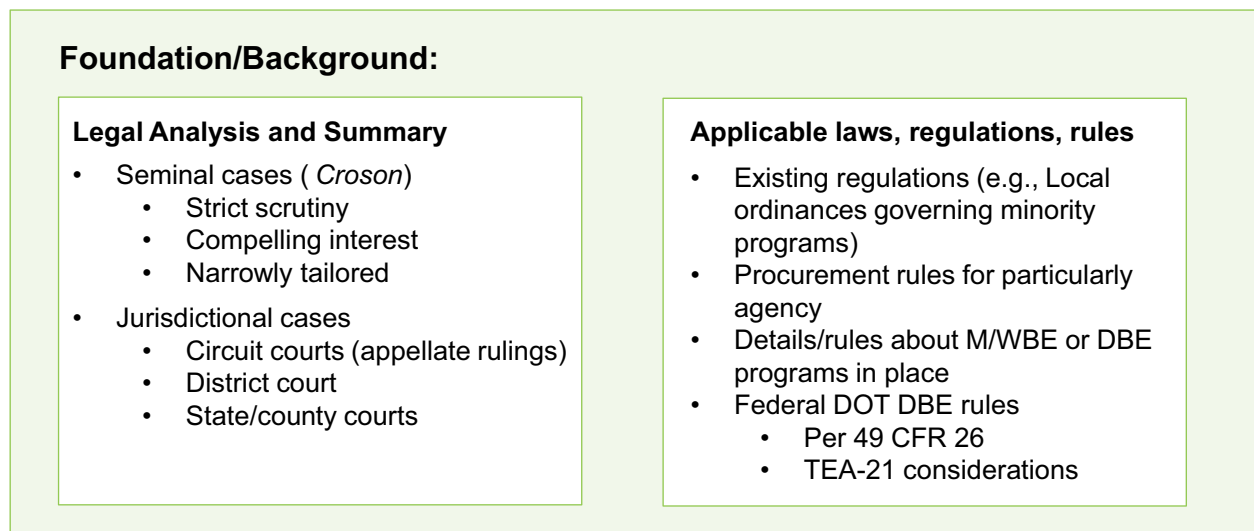
## GENERAL OVERVIEW OF DISPARITY STUDIES

### *Foundation/Background*

Two elements generally comprise the foundation and background sections of disparity reports. The first is a synopsis of relevant case law and legal precedent that provides the standards by which consultants conduct disparity studies. The second is an understanding and overview of rules, regulations, and ordinances that cover existing procurement procedures or enforce existing contracting programs designed to alleviate or remediate contracting disparities. The most cited example is requirements associated with the federal disadvantaged business enterprise (DBE) program for federally-funded projects. Figure 3-1 outlines key components of the legal review and applicable laws, regulations, and rules included in disparity studies.

FIGURE 3-1

### LEGAL REVIEW AND REQUIREMENTS FOR DISPARITY STUDIES



Disparity studies typically include a legal review, as discussed in Chapter 2, but with greater detail and application to the relevant jurisdiction and program type. As shown on the right hand side of Figure 3-1, disparity studies also typically incorporate an overview of the relevant regulations, rules, and ordinances surrounding agency contracting. For state DOTs using federal funds for projects, this entails understanding the legislation in the federal DBE program, including the considerations of legislation such as the Transportation Equity Act for the

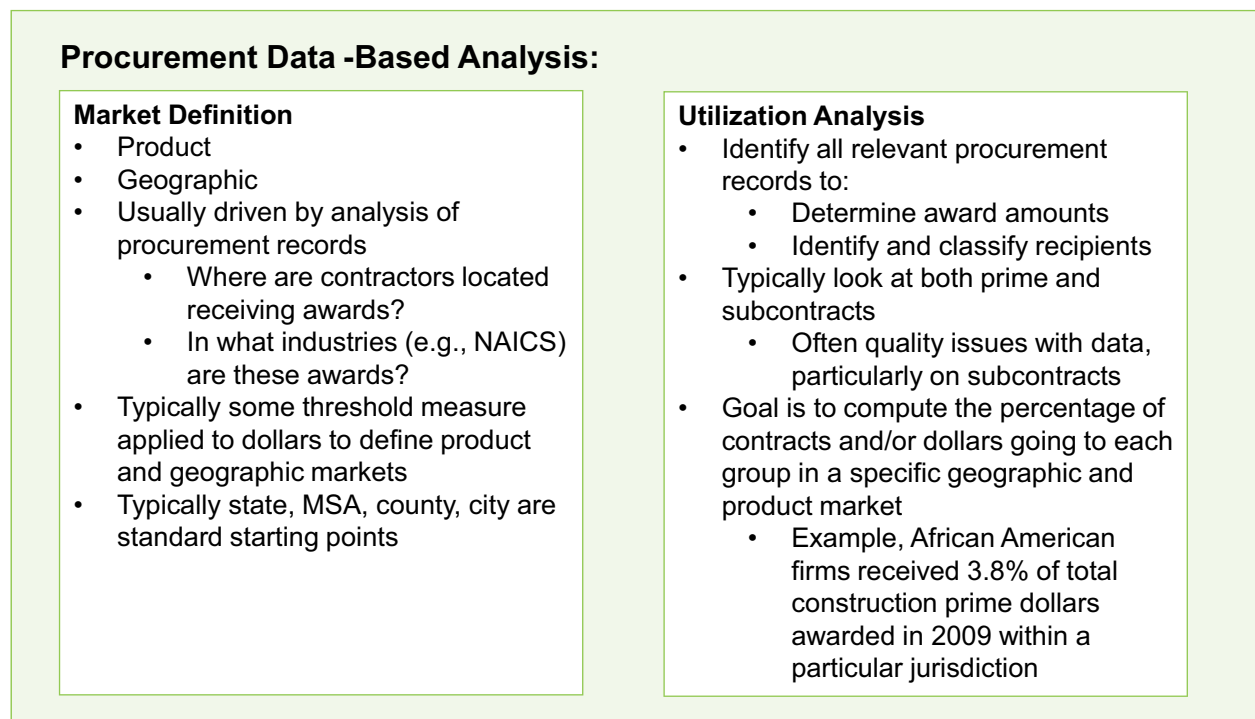
21<sup>st</sup> Century (TEA-21). In contrast, disparity studies involving local or municipal agencies focus on the general procurement rules in place for the particular agency, municipality, or state in which the agency resides.

### **Procurement Data and Analysis**

The next element in most disparity studies is a review of the underlying procurement data used in conducting a disparity study. By definition, adequate procurement data (i.e., who, when, where, what, and how much of contracts) is a prerequisite to determining whether contracting disparities exist for minority business enterprises. Figure 3-2 illustrates the key components of procurement data analysis.

FIGURE 3-2

### **KEY COMPONENTS OF PROCUREMENT DATA ANALYSIS**



The left hand side of Figure 3-2 presents the concept of market definition, where a market is defined along both geographic and product dimensions. Market definition is an economic concept that looks to substitutability and is intended to determine who is competing for public contracts along geographic and product lines. Almost every study had an explicit definition of both geographic and product markets, as these are required in order to determine the extent to which disparities exist among competitive market participants.

With respect to the geographic market definition, some studies define the market based on vendor locations that account for a certain percentage (e.g., 75 percent) of dollar expenditures

in the study period. Other studies employed a less rigid threshold, but still examined vendor locations where the “majority” or “most” contract dollars were awarded. The most common units of geographic boundaries employed were state, county, city, or metropolitan statistical area (MSA),<sup>26</sup> where study authors examined locations of vendors competing for and winning procurement awards for the particular agency.

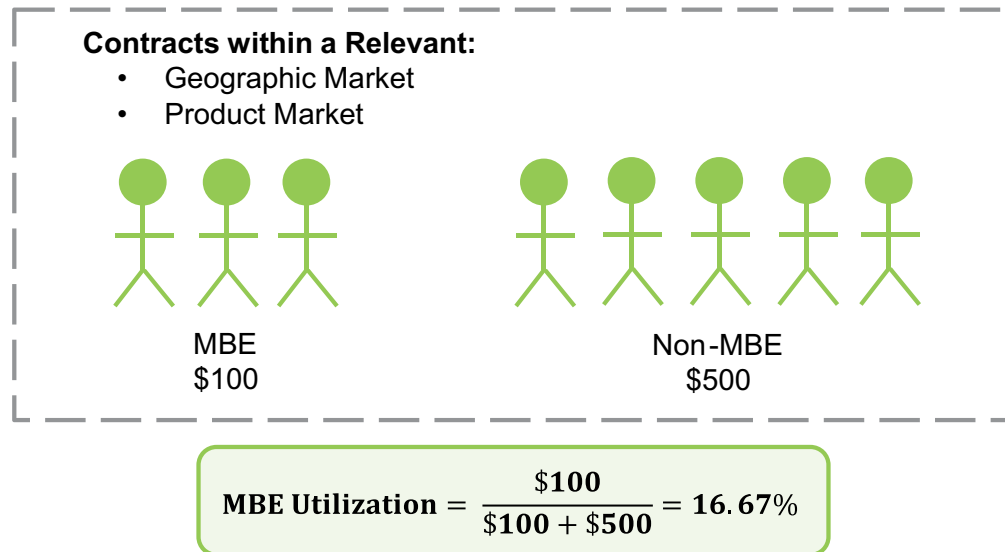
Existing disparity studies define product markets in a similar fashion, with a focus on assessing the economic parameters that indicate which firms compete for procurement actions given particular contract requirements. For example, a construction firm and a janitorial supplies firm may not compete on similar contract proposals given the difference in the industry in which each company operates. In determining contract disparities, it is erroneous to assume that these two firms are both “ready, willing and able” to compete and execute a large scale construction project. In fact, only the first firm is available within the defined product market of construction. Study authors are especially focused on identifying competing firms within particular product or industry categories such that any observed contracting disparities are narrowed to the scope of potentially affected firms within the defined product market. In most instances, the studies defined product markets at a very high level of aggregation, e.g., “Construction” or “Goods and Services.” In other instances, studies defined markets more narrowly, grouping firms by North American Industry Classification System (NAICS) codes.

The right hand side of Figure 3-2 focuses on the extent to which minority-owned firms are utilized in contracting by a particular government agency or agencies. Utilization is a core disparity study concept and represents the share of prime and/or subcontract dollars that an agency awarded to a particular type of business enterprise during a particular time period. It is typically expressed as a percentage relative to the total amount awarded to all contractors in the same time period. Calculating utilization follows defining applicable geographic and product markets. Figure 3-3 illustrates a simple utilization calculation for hypothetical minority business enterprises (MBEs) operating in a particular market.

---

<sup>26</sup> MSAs are defined by the Office of Management and Budget (OMB) and are used by multiple agencies to delineate geographic areas based on groupings of population data.

FIGURE 3-3  
UTILIZATION EXAMPLE USING CONTRACT AWARDS



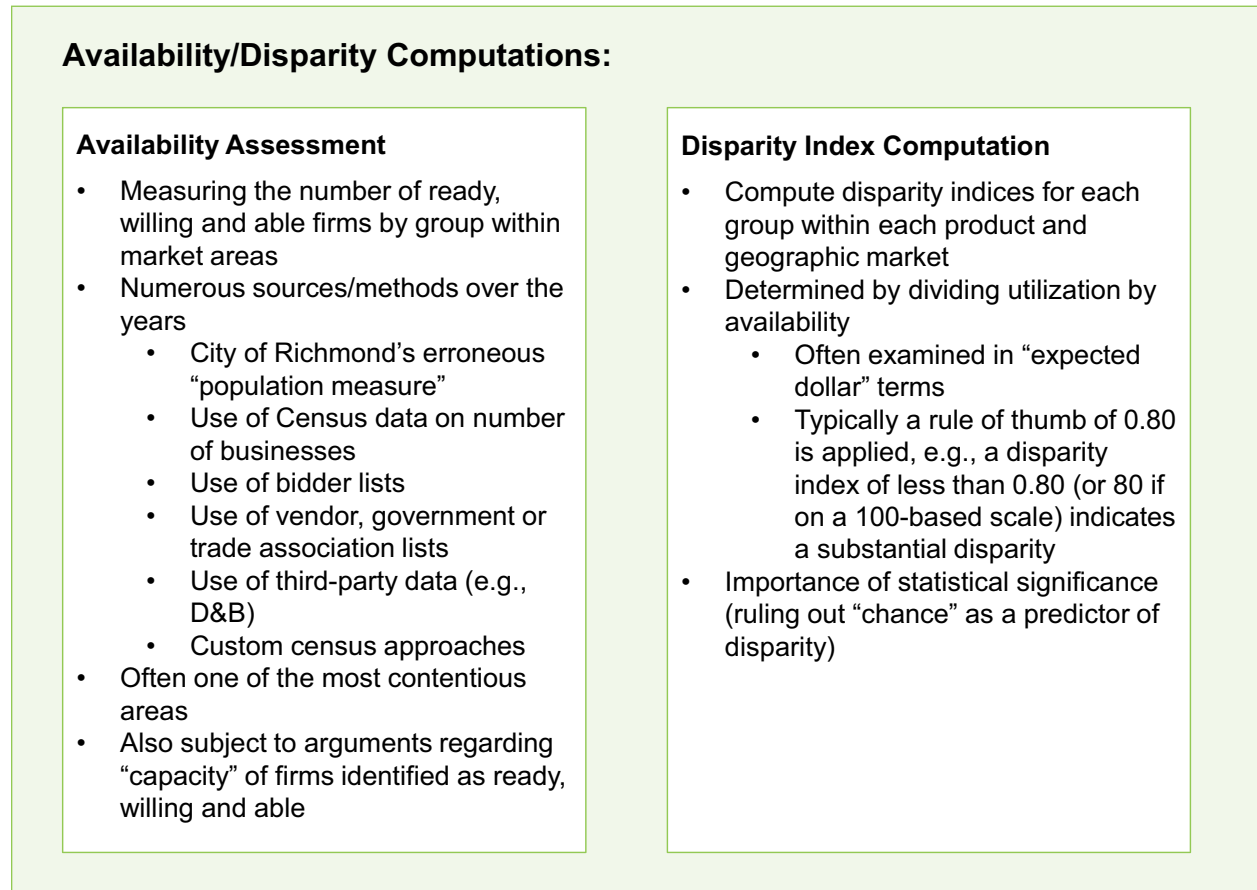
Underlying the utilization computation are several key inputs. First, the process requires identifying all relevant procurement records to determine award amounts and identify and classify recipients by ownership type. Almost always, disparity study consultants are limited by the quality of the procurement data collected and maintained by the government agency. In some cases, data are incomplete, missing or simply not captured. A common example is that a number of municipalities fail to capture subcontractor data in their procurement records. Nevertheless, disparity studies typically attempt to examine both prime and subcontractor data. Second, the process leverages the definition of the geographic and product markets to determine the utilization within these markets.

### ***Availability and Disparity Calculations***

The market definition and utilization calculations discussed above only tell part of the contracting disparity story. In order to measure actual contracting disparities, studies compute the total number of businesses able to perform (or “available”) contract work within the defined market areas. The definition of an “available” business is a critical element of disparity studies, and as discussed in more detail below, one of the most contentious areas among consultants and practitioners. Figure 3-4 highlights some of the different methods that have been used over time to compute “available” businesses, while also outlining the disparity index computation.

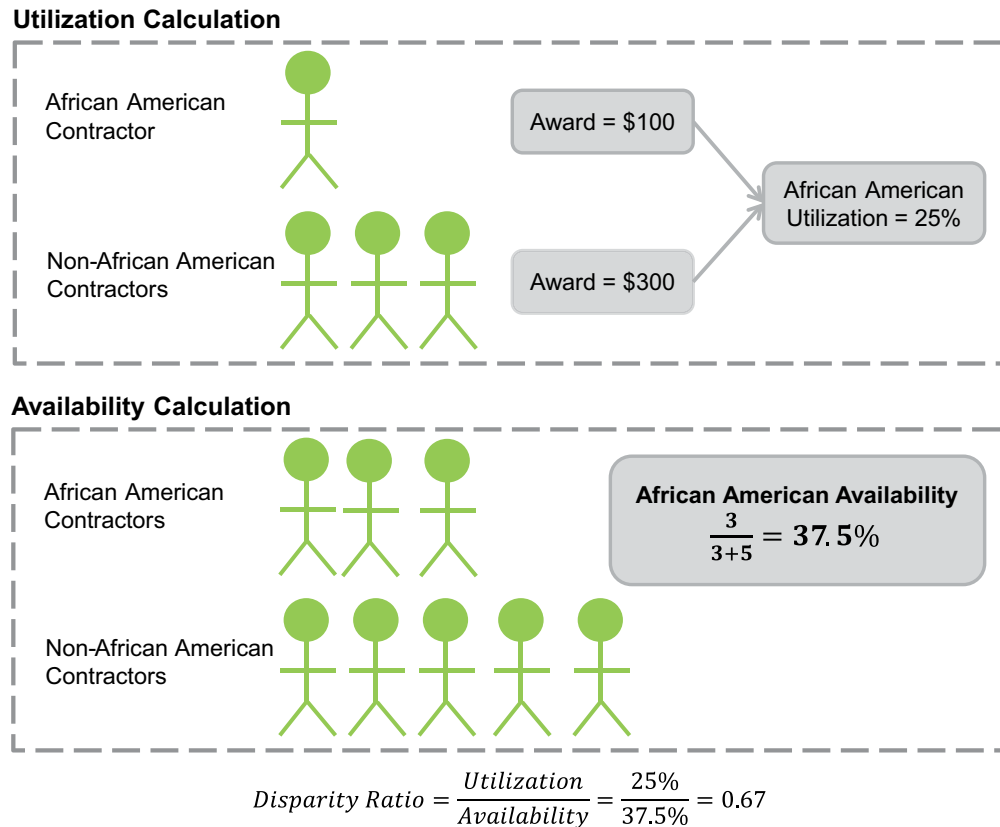
FIGURE 3-4

## METHODOLOGIES FOR CALCULATING AVAILABILITY AND DISPARITY INDICES



After determining the number of available businesses, disparity studies typically include disparity indices for each business type (e.g., MBE, WBE or DBE) within each product and geographic market. In most cases, existing disparity studies also compute these disparity indices over multiple time periods and for individual racial and ethnic groups (e.g., African American, Hispanic-American, etc.). Formulaically, the disparity index represents the utilization divided by the availability. Some consultants multiply the resulting index by 100 as opposed to expressing the result as a fraction. Figure 3-5 illustrates a simple hypothetical calculation of a disparity index for African American construction firms operating in a particular geographic market in one year.

FIGURE 3-5  
DISPARITY COMPUTATION EXAMPLE



In this simplified hypothetical example, the disparity index of 0.67 indicates that a disparity between African American construction firms and other firms exists. As a general rule of thumb, a disparity of less than 0.80 (or 80 if expressed on a scale that multiplies the disparity index by 100) indicates a substantial disparity.<sup>27</sup>

<sup>27</sup> See *City and County of Denver Minority/Women Owned/Disadvantaged Business Enterprise Disparity Study* MGT of America, Inc., July 29, 2013, at p. 5-5: "Since there is no standardized measurement to evaluate the levels of underutilization or overutilization within a procurement context, MGT has appropriated the Equal Employment Opportunity Commission's (EEOC) "80 percent rule" in *Uniform Guidelines on Employee Selection Procedures*. In the context of employment discrimination, an employment disparity ratio below 80 indicates a "substantial disparity" in employment. The Supreme Court has accepted the use of the 80 percent rule in *Connecticut v. Teal* (*Teal*), 457 U.S. 440 (1982), and in *Teal* and other affirmative action cases, the terms "adverse impact," "disparate impact," and "discriminatory impact" are used interchangeably to characterize values of 80 and below. Thus, a disparity index below 80.00 indicates a substantial level of disparity."

The hypothetical example is a basic example that highlights some, but not all of the considerations inherent in availability and disparity index computations. Additional elements include whether to weight the calculations by contract values, or alternatively include limits on the specific contracts considered in determining utilization and availability.<sup>28</sup> Study authors also focus on testing the statistical significance of the observed disparity. At the most rudimentary level, statistical significance is an outcome or result that is unlikely to have occurred as the result of random chance alone.<sup>29</sup> The greater the level of statistical significance, the less likely the result occurred due to random chance. Study authors typically report statistical significance using p-values, which provide a numerical probability that an outcome or result is due purely to chance.<sup>30</sup> Many studies that include statistical significance will “test” whether the disparities are significant at a particular probability level or levels (e.g., at the 10 percent, 5 percent and 1 percent levels). Disparities that are significant at the 1 percent level have greater statistical significance than those that are only significant at the 10 percent level.

### ***Discrimination Assessment***

In the prior section, the hypothetical example yielded a disparity ratio of 0.67 for African American firms in a relevant market for a particular period of time. While many disparity studies test whether this is a statistically significant disparity (i.e., not necessarily by “chance”), support for remedial relief is also apparent with analysis of both economy-wide disparities and collection of anecdotal evidence. The vast majority of the disparity studies reviewed contained regression analysis<sup>31</sup> of public economic and employment data to demonstrate marketplace disparities arising from discrimination, as well as detailed collection of anecdotal evidence that supported the quantitative results. Figure 3-6 shows the key inputs for these two elements typically found in disparity studies.

---

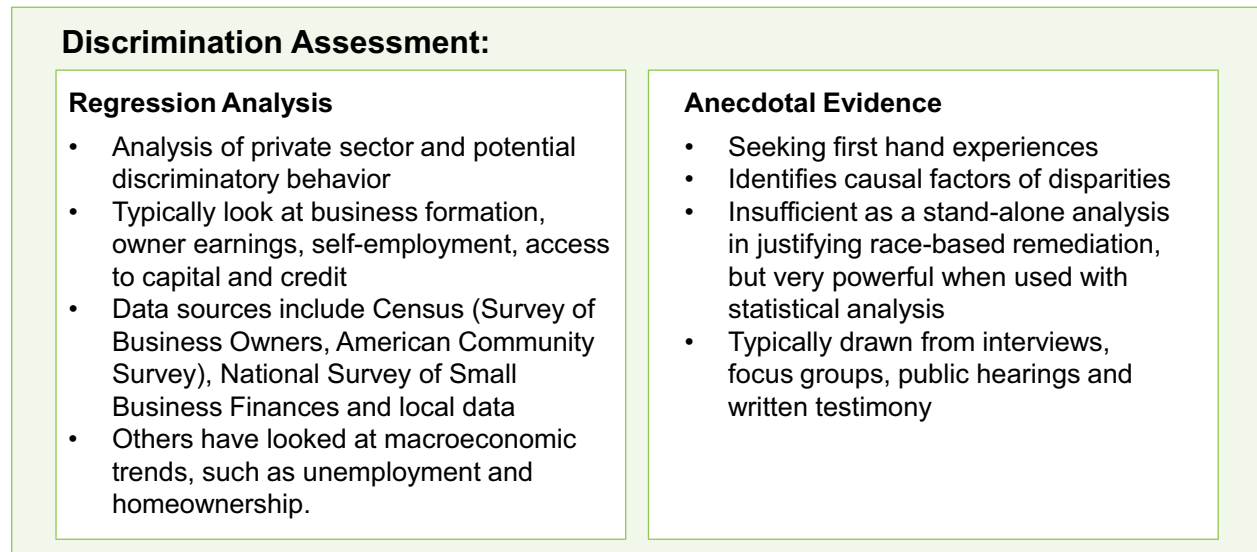
<sup>28</sup> An example is only analyzing contracts in relevant markets that are less than a certain dollar amount.

<sup>29</sup> Wainwright, Jon and Colette Holt. *NCHRP Report 644: Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Transportation Research Board, Washington, D.C. 2010, p. 98.

<sup>30</sup> Ibid. For example, a p-value of 0.10 or 10 percent indicates that the chance a given statistical difference is due purely to chance is 1 in 10.

<sup>31</sup> Regression analysis is a statistical approach to measuring the relationships among variables.

FIGURE 3-6

**DISCRIMINATION ASSESSMENT ANALYSIS SUMMARY**

Disparity studies that explore private sector or marketplace disparities typically include data analysis driven by legal precedent and existing regulations. A review of existing disparity studies indicates evidence of marketplace discrimination by relying on:

- Regression analysis comparing business formation rates between MBEs, WBEs and non-M/WBEs in the relevant product and geographic markets;
- Regression analysis comparing the earnings of owners of MBEs and WBEs compared to non-M/WBEs in the relevant product and geographic markets;
- Regression analysis comparing self-employment rates of MBEs and WBEs compared to non-M/WBEs in the relevant product and geographic markets;
- Regression analysis related to access to capital barriers, such as commercial loan denial rates for MBEs and WBEs compared to non-M/WBEs in the relevant product and geographic markets; and
- Analysis of market share data between MBEs, WBEs and non-M/WBEs in the relevant product and geographic markets.<sup>32</sup>

As shown in Figure 3-6, qualitative data analysis incorporates first-hand experiences supporting the presence of discrimination, while also providing information on causal factors. Disparity studies typically gather anecdotal evidence via interviews, focus groups, public hearings, and written testimony. The evolution of disparity studies incorporates a shift towards including more robust qualitative data to not only support quantitative findings, but also to provide insight into the causes of discrimination in public contracting. Over time, the collection of

<sup>32</sup> This is not meant to be an exhaustive list, and, not all disparity studies included all of these analyses when examining economy-wide discrimination.



anecdotal evidence has become a critical element of well-defined and robust disparity studies. However, it is important to note that anecdotal evidence is insufficient as a stand-alone analysis in justifying race-based remediation programs, but valuable when used in conjunction with statistical analysis.

High quality disparity studies incorporate anecdotal evidence sourced from multiple techniques that is sufficient to withstand the strict scrutiny standard. In *Croson*, the Court defined the value of anecdotal evidence, indicating that anecdotal evidence is particularly valuable when coupled with robust statistical proof of disparities. As such, anecdotal evidence serves as an important causal link for assessing contracting disparities observed via disparity ratios and discrimination inferred from market-wide regression analysis. In fact, leading experts recognize that anecdotal evidence is “essential if a government is to defend a MBE program successfully.”<sup>33</sup> Anecdotal evidence is a necessary step for agencies that wish to remedy contracting disparities because it provides context for disparity ratios and can explore outcomes related to discriminatory and non-discriminatory behavior. This is accomplished by drawing anecdotal evidence from a broad composition of stakeholders, including both minorities and non-minorities. Relying on a control group of non-minority firms in the anecdotal data collection effort provides a complete picture and reduces the potential for anecdotal evidence to be dismissed as “one-sided” or solely based on the perceptions of the disaffected group. The most robust and reliable disparity studies will implement this best practice by providing as complete an anecdotal analysis as feasible.

Critics of the validity of anecdotal evidence argue that the accounts may not be sufficiently verified and that instead of detailing actual accounts of discrimination, the evidence may only present perceptions of discrimination.<sup>34</sup> Legal proceedings have varied on the level of verification needed to support the importance and relevance of anecdotal evidence. In one proceeding, the Court rejected the need for widespread verification of anecdotal accounts noting that anecdotal evidence is, at its core, “a witness’ narrative of an incident told from the witness’ perspective and including the witness’ perceptions.”<sup>35</sup> Alternatively, a different district court ruling found that “without corroboration [of anecdotal accounts], the Court cannot distinguish between allegations that in fact represent an objective assessment of the situation, and those that are fraught with heartfelt, but erroneous, interpretations of events and circumstances.”<sup>36</sup> As a result of the potential pitfalls in failing to capture objective accounts of contracting barriers and discrimination, disparity study best practices dictate that consultants make every effort to use multiple data collection techniques, incorporating opinions from a variety of contractors in the industry and geographic market being studied, and seek to find verifiable anecdotal accounts. This reduces the reliance on single accounts, and instead builds

<sup>33</sup> Hanson, Jeffrey. *Hanging by Yarns: Deficiencies in Anecdotal Evidence Threaten the Survival of Race-Based Preference Programs for Public Contracting*. Cornell Law Review 88:1433, 1447-48 (2002).

<sup>34</sup> 936 F. Supp. At 1373.

<sup>35</sup> Rowe, 615 F.3d at 249.

<sup>36</sup> 943 F. Supp. 1546 (S.D. Fla 1996).

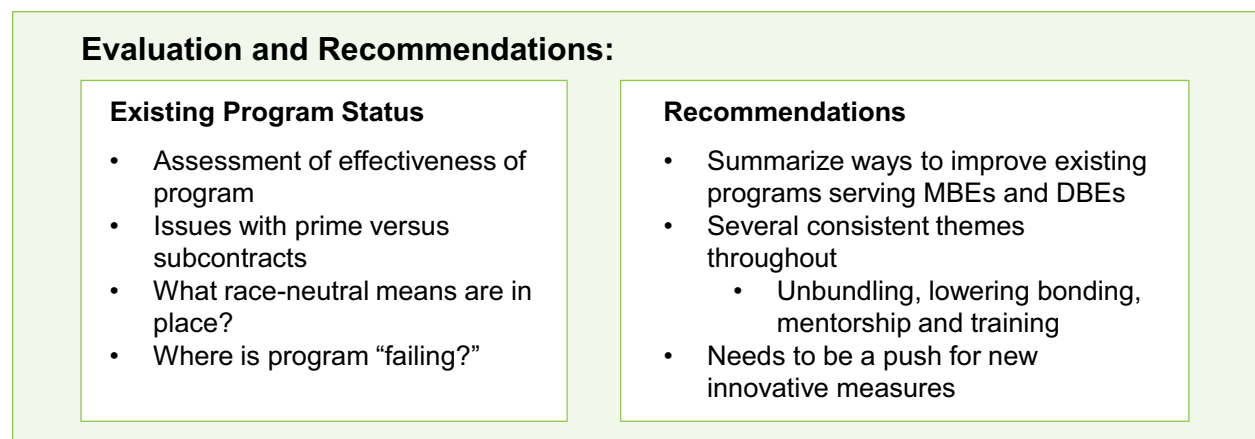
a body of evidence demonstrating causal barriers and discriminatory actions that result in minority underrepresentation in public contracting. Evidence based on multiple accounts that corroborates statistical analysis including regressions and ratios presents the strongest causal basis for identifying barriers and discrimination within the context of a disparity study.

### ***Evaluation and Recommendations***

Figure 3-7 depicts several key elements typically detailed in the evaluation and recommendation sections of disparity studies.

FIGURE 3-7

### **EVALUATION AND RECOMMENDATION FOCI**



The extent to which a disparity study includes evaluation and recommendations varies based on the purpose of the report. Studies conducted for litigation purposes often provide an evaluation of a program limited to whether the program is necessary in light of observed disparities, but exclude recommendations. In contrast, a disparity study conducted for federal DBE program purposes (e.g., by a state DOT) typically includes a comparison of results to existing or prior contracting goals, as well as recommendations for goals in the next period of performance. Disparity studies for municipalities may focus extensively on program evaluation and recommendations for how agencies can improve upon program performance in procurement data collection, contracting process and procedures, resource allocation, and policy actions related to race-neutral or race-based contracting programs.

### **CRITICAL AND OFTEN CONTENTIOUS ISSUES**

This section explores issues that involve the interpretation of disparity study results and which can lead to disagreement among consultants conducting disparity studies or testifying to disparity issues in legal proceedings. The following discussion represents insights taken directly from a review of the legal precedent and methodologies employed by various consultants in the disparity studies reviewed for this report.

### ***Defining Availability***

Defining availability is an area of potential disagreement among consultants and experts in performing a disparity study or providing expert opinions in a legal challenge. Specifically, there are different methods and interpretations of how to determine whether a particular firm (regardless of whether it is an MBE or non-MBE) is “available” to bid on a contract and actually perform the work required on a particular contract. The legal precedent refers to “ready, willing and able” in measuring the availability of firms to use in measuring disparities. This characterization entails an analysis that goes beyond assuming that every firm in a particular relevant market should be included in the availability determination. In contrast, the term “ready, willing and able” ideally necessitates a comprehensive analysis at both the firm and contract level.

The review of existing disparity studies and legal precedent yielded numerous methods that consultants and experts use to define availability and compute the number of available firms in relevant markets. Commonly cited methods include:

- Vendor lists;
- Bidder lists (i.e., a subset of vendors);
- Census data (either population or business count data); and
- Custom census.

The vendor list approach entails identifying available businesses from lists of vendors derived from multiple sources including government procurement registration lists, qualified bidder lists, government certification lists, business or trade association membership lists, and individual consultant outreach (e.g., consultant-generated list of businesses). Bidder lists represent a subset of vendor lists, limited to the firms that actually bid on particular projects for the agency or agencies subject to the disparity analysis. Census-based approaches to availability include using publicly-available population and firm counts, but these typically lack any firm-specific characteristics. Lastly, a number of consultants use a “custom census” approach to develop results that are representative of the jurisdiction and markets under review.

Legal challenges to race-based contracting programs provide insight into court-preferred methodologies. In general, the use of bidder lists as the defining measure of available firms is not favorable in the courts or among experts. The main argument is that bidder lists improperly exclude ready, willing, and able firms that are not on the bidder list, but should be when considering available firms. As one consultant states:

*"Some commentators... have advocated that the appropriate way to estimate availability is through the use of bidder lists. In my view this is a singularly inappropriate thing to do; using a bidder list assumes away the existence of discrimination. It is perfectly possible that discrimination could have infected all aspects of a firm's work environment including being able to bid."*<sup>37</sup>

In contrast, custom census approaches address many of the shortcomings of incomplete data sets such as bidder lists or Census data. Several leading consultancies use this approach, adhering to a general framework described by Wainwright and Holt:

*The custom census approach employs a seven-step analysis that (1) creates a database of representative [agency] projects, (2) identifies the appropriate geographic market for the [agency's] contracting activity, (3) identifies the appropriate product market for the [agency's] contracting activity, (4) counts all businesses in those relevant markets, (5) identifies listed minority-owned and women-owned businesses in the relevant markets, (6) verifies the ownership status of listed minority-owned and women-owned businesses, and (7) verifies the ownership status of all other firms. This method results in an overall ... availability number that is a dollar-weighted average of all the underlying industry availability numbers, with larger weights applied to industries with relatively more spending and lower weights applied to industries with relatively less spending. The availability figure can also be subdivided by race, ethnicity, and gender group, as well as by highway district, where appropriate.*<sup>38</sup>

The custom census approach requires considerable time and resources. In executing the last steps, consultants typically conduct a comprehensive review of existing businesses, including outreach to verify firm-specific characteristics.

## Capacity

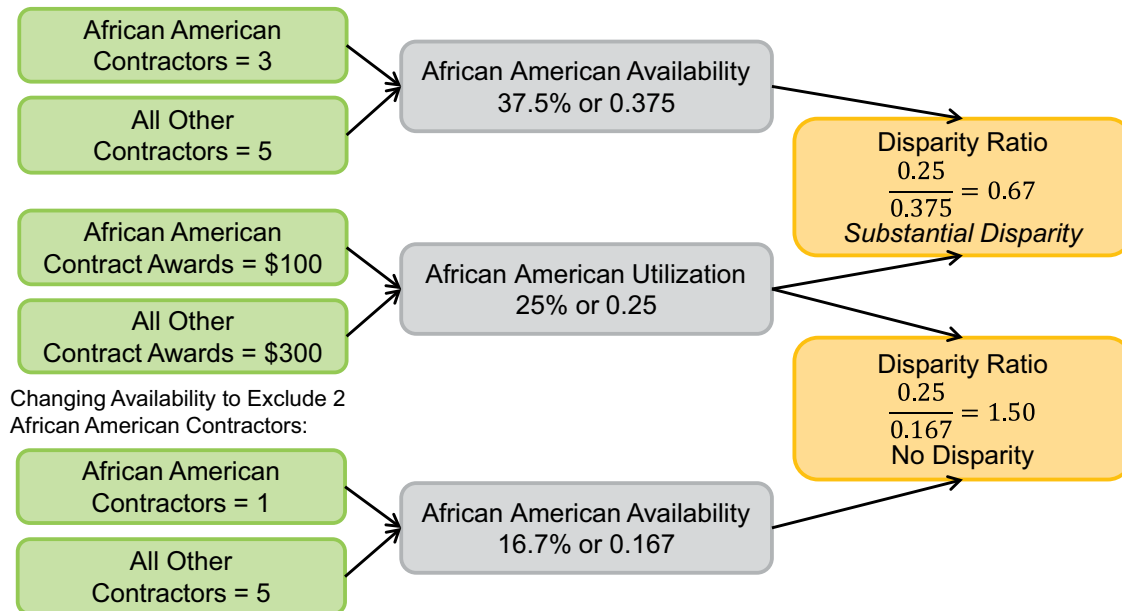
As discussed in Chapter 2, capacity is a firm-level measure of whether a particular contractor has the ability to satisfy the requirements of a particular contract (e.g., does it have the capacity to perform the contracted work such that it can be considered ready, willing and able to bid on the project). Capacity is a key issue in considering availability and one that experts use in advocating for eliminating affirmative action programs. Capacity-based arguments involve the perception that smaller firms do not have the capacity to handle larger contracts, or alternatively, are constrained by their ability to handle multiple procurement actions at the same time. The implication is that when computing availability, it is erroneous to include a firm that is ready, willing and able if there is the belief that firm does not have the capacity to be "able" to execute the contract, even if it were "ready and willing." Figure 3-8 demonstrates how the

<sup>37</sup> Report on the City of Chicago's MWBE Program, David G. Blanchflower, June 10, 2009, p. 82.

<sup>38</sup> Wainwright, Jon and Colette Holt. NCHRP Report 644: Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program. Transportation Research Board, Washington, D.C. 2010, p. 30.

disparity study computation changes based on the presumption of capacity constraints resulting in a reduced number of “available” minority-owned firms.

FIGURE 3-8

**CAPACITY SENSITIVITY EXAMPLE**

In the hypothetical demonstration of Figure 3-8, reducing the number of “available” minority-owned firms by exclusion due to capacity constraints changes the outcome, such that there is no longer an observed disparity. More recent disparity studies include proposed solutions to evaluate and address capacity issues and concerns. These include:

- Performing a contract by contract analysis to determine “bid capacity” of every firm on each contract;
- Limiting the analysis based on contract thresholds (e.g., only examining contracts under a certain dollar amount while also considering the largest bids offered by firms in each racial, ethnic or gender group); and
- Limiting the analysis and evaluation of contracting activity to subcontracts, where the perception is smaller dollar values lessen concerns about capacity.

Some consultants favor using firm size as a “threshold” for evaluating capacity. However, firm size is often not the best measure. Prior cases have illustrated that size can be an outcome of discrimination and that small firm capabilities can be highly elastic.<sup>39</sup> Examples are construction firms that can scale up quickly in response to contract awards.

<sup>39</sup> *Concrete Works II*, 36 F.3d at 1528-29 and *Concrete Works IV*, 321 F.3d at 980-982.

The level of detail with which disparity studies address capacity varies and depends on resources. Ideally, consultants could go firm by firm to address whether a particular firm has the capacity to bid on each project. However, in most cases, this is not feasible. Instead, many consultants use a bid capacity approach inherent in the custom census approach.<sup>40</sup> By weighting contracting results by dollars, one can address capacity without any extra downward bias from capacity adjustments (e.g., thresholds). As noted by Wainwright and Holt:

*[A capacity adjustment] reduces the availability percentage by controlling for factors that are likely to be directly affected by the presence of discrimination in the relevant markets. Whether firms have worked or attempted to work on [agency] projects have been awarded prime contracts or the size of those contracts should not be used to limit the ... availability measure. Not only is this a problem in its own right, but also it may hide the existence of discrimination because a downward bias in availability can lead to a conclusion of no significant disparity when, in fact, a disparity exists.<sup>41</sup>*

The concept of “relative capacity” extends the discussion to encompass the argument that some firms lack the capacity to work on multiple projects at the same time. As a result, the belief is that any “availability” measure that fails to recognize this aspect is not sufficient. This is an issue for analyses that use either vendor or bidder lists, particularly where companies have not been contacted to identify firm-specific characteristics that might provide information on relative capacity. One solution is the use of weighted availability data, for example, utilizing dollar-weighted averages in computing availability. In this method, disparity study authors calculate availability on a contract by contract basis, identifying firms that are available based on contract type and size. So for a smaller dollar contract, there might be many more firms (including MBEs) that are available than for larger contracts where smaller firms do not have the capacity necessary to handle the requirement. Disparity consultants compute availability percentages for each contract, then weight the result by the dollar value of the contract. Thus, the higher contract value has a higher weight and greater influence on the overall availability percentage used in the disparity ratio computation.<sup>42</sup>

### **Data Biases and Errors**

In an ideal situation, data exist at a level sufficient to satisfy inquiry at a disaggregated level. However, claims of insufficient data to analyze contracts by ethnic or racial group at a prime,

---

<sup>40</sup> One example is *Arizona Department of Transportation Disparity Study Report*, Keen Independent Research, 7/2015, p. 5-11, which states: Using a custom census approach typically results in lower availability estimates for MBEs and WBEs than a headcount approach due in large part to Keen Independent's consideration of “bid capacity” in measuring availability and because of dollar-weighting availability results for each contract element (a large prime contract has a greater weight in calculating overall availability than a small subcontract). The largest contracts that MBE/WBEs have bid on or performed in Arizona tend to be smaller than those of other businesses, as discussed in [the report]. Therefore, MBE/WBEs are less likely to be identified as available for the largest prime contracts and subcontracts.

<sup>41</sup> Wainwright, Jon and Colette Holt. *NCHRP Report 644: Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Transportation Research Board, Washington, D.C. 2010, p. 32.

<sup>42</sup> Many studies implement the dollar-weighted average approach. One example is *2015-16 State of Indiana Disparity Study*, BBC Research & Consulting, March 2016, p. 5-4.

subcontract, or industry level permeate existing disparity studies. This arises as a function of the data collection efforts employed at the agency or government level. At best, incomplete recordkeeping can limit the usefulness of a study and at worst, can undermine claims of discrimination based on insufficient evidence. Complicating matters is that analysis of data at a highly disaggregated level can significantly reduce the number of data points upon which the disparity study draws conclusions. In this case, the question is whether just a few data points are sufficient to establish discriminatory behavior from a statistical perspective or if aggregation is necessary. Yet, aggregation can appear at odds with the legal desire to structure programs and actions that are narrowly tailored.

In the first case, inadequate data is largely a function of the procurement agencies' inability to implement standardized contract data collection systems, personnel shortages to capture these data, or simply that the data are not collected or monitored. The greatest data gap encountered in this review was data on subcontracting activity. This is a critical issue given that many MBE or DBE programs focus on subcontracting goals as a means to remove discriminatory behavior. Disparity studies typically overcome these limitations by excluding certain analyses with questionable data or aggregating data across contract types (e.g., prime plus subcontract), industry, or ethnic/racial groups (e.g., just reporting overall MBE results). In reality, these data should be reported separately and only aggregated under reasonable assurances that aggregation increases the reliability of the results.

Issues also exist with respect to data obtained from third-parties. For example, many consultants begin an availability study by using third-party data such as those from Dun & Bradstreet, which provide business listings and information including ownership, location, and receipts. Tacit acceptance of the reliability of these data with respect to classifications can be problematic. For example, one consultant noted significant error rates in M/WBE reporting, sufficient to skew the results of an availability computation.<sup>43</sup>

Yet another issue arises when analyses use small sample sizes or small contract sizes, such that one observation can skew the results. An example drawn from one disparity study illustrated how the disparity ratio for WBEs changed dramatically based on contracts awarded to a single company. The company was apparently certified as a WBE at one time in California, but was denied DBE certification in Arizona. During the study period, the company received a significant amount of contract awards. If one classified this firm as a WBE, it yields a WBE disparity ratio in excess of 1.0 (i.e., no disparity exists). However, if the firm is removed from the pool of WBEs due to questions about certification and ownership, the WBE disparity ratio changes significantly and drops below 1.0 (i.e., disparity exists).

---

<sup>43</sup> Report on the City of Chicago's MWBE Program, David G. Blanchflower, June 10, 2009, p. 88.



## Statistical Significance

Statistical evidence is critical to disparity studies and is necessary to meet the legal standards of evidentiary review and support the implementation or need for a race-based contracting program. Croson laid out the initial framework by stating that “where there is a statistically significant disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality’s prime contractors, an inference of discriminatory exclusion could arise.”<sup>44</sup> As a result of this and subsequent legal challenges, a key question is what defines a *statistically significant* disparity?

As discussed previously, disparity consultants typically use an 80 percent threshold to identify a substantial disparity. While implementing an 80 percent threshold is informative, it still raises questions about whether the disparity is statistically significant. In order to address this, disparity study consultants implement a number of tests to determine whether a disparity is statistically significant. These include:

- *Parametric analysis on individual contracts.* In this method, disparity study consultants conduct a statistical test to determine whether an observed disparity index of one group is statistically different from that of another group or test value. For example, one can conduct a t-test,<sup>45</sup> to determine whether the observed disparity index would fall outside a certain range of values surrounding the test value (or mean of the other group).<sup>46</sup>
- *Non-parametric analysis on individual contracts.* This method is typically used when there are a lower number of contracts or high variability in dollar amounts observed in the procurement data. Instead of using contract values, the disparity study consultant will rank each contract on a whole number scale (e.g., rank order) and use these values in the statistical tests, as opposed to actual contract values.<sup>47</sup>
- *Simulation analysis on expected contracting outcomes.* Disparity study consultants also use simulation analysis to rule out “chance” as a reason for observing disparity indices different from 100 (or 1.0). While simulation can be performed at a contract level or an aggregate level (i.e., grouping many contracts), the main goal is to recreate what one would expect given inputs on actual bids and availability numbers for each business type. If the simulation exercise is unable to replicate the observed disparity indices, then one can realistically conclude that the observed disparity index did not occur due to chance and is due to separate factors such as discrimination.<sup>48</sup>

<sup>44</sup> Croson, 488 US 469 (1989).

<sup>45</sup> A t-test is a statistical hypothesis test based on a test statistic with a particular sampling distribution. It tests whether the means of two groups are statistically different based on the distribution. For example, in the context of disparity studies, a t-test might determine whether an observed disparity ratio is statistically significant with respect to a hypothesized value (e.g., 1.0).

<sup>46</sup> For more information on the statistical significance in parametric testing, see *Broward County Public Schools Disparity Study*, Mason Tillman Associates, 10/2015, at p. 9-1.

<sup>47</sup> Ibid.

<sup>48</sup> Additional information on simulation tests can be found in *Arizona Department of Transportation Disparity Study Report*, Keen Independent Research, 7/2015, at p. 6-15.



It is also important to note that a non-significant disparity does not mean that discrimination does not exist. Rather, there is insufficient information to reject the possibility that the disparity is either due to chance or does not exist. For example, one reason for not finding statistical significance in observed disparities relates to an insufficient number of data points (i.e., bids or contracts) necessary to perform the statistical test. A low frequency of data points does not indicate that discrimination does not exist. Instead, disparity study consultants look to other means of analyzing discrimination, including aggregating data, examining macroeconomic factors of discrimination (i.e., discrimination in private markets), and importantly, anecdotal evidence of discrimination.

### ***Appropriate Time Period***

The review of existing disparity studies identified a number of permutations when analyzing time periods covered in analyzing contracting disparities for procurement agencies. These included:

- A set number of procurement years, tied to the relevant fiscal year, e.g., analyzing all procurement actions between FY2009 and FY2011.
- A defined date range, e.g., January 1, 2011 through June 30, 2013;
- Individual calendar or fiscal years;
- Periods that encompass a time when race-based programs were in effect and periods where no race-based programs were in effect;<sup>49</sup> and
- Distinguishing between pre-recession and post-recession time periods.

In many cases, the study scope may have been determined by the agency, tailored to fit available resources. An analysis of results during periods where race-conscious programs exist versus those periods without such programs can provide information on the effectiveness of race-conscious programs. If awards to minority contractors decline precipitously after the suspension of a program, a reasonable hypothesis is that the program was the primary driver in overcoming discriminatory behavior and increasing parity in contracting.

## **IMPORTANCE OF ANECDOTAL INFORMATION**

Qualitative data analysis provides an opportunity for disparity studies to supplement quantitative data with respect to discrimination in public contracting. As noted in one disparity study:

*The statistical data can quantify the results of discriminatory practices, while anecdotal testimony provides the human context through which the numbers can be understood.*<sup>50</sup>

<sup>49</sup> This occurred frequently during the 2006 through time period when many state DOTs suspended existing race-conscious programs in light of the *Western States Paving* decision.

<sup>50</sup> *Broward County Public Schools Disparity Study*, Mason Tillman Associates, 10/2015, p. 8-1.

There are several ways in which existing disparity studies collect anecdotal information, including a combination of surveys, personal interviews, focus groups, public hearings, and written testimony. Some studies favored a particular approach (e.g., oral history through personal interviews), while others used combinations of methods across multiple forums. Most disparity studies contained information on the nature and importance of anecdotal evidence. In some cases, disparity studies leveraged anecdotal evidence from other disparity studies conducted in nearby or overlapping geographic regions for similar time periods.<sup>51</sup> One study noted:

*Anecdotal research is a widely accepted research methodology that is based upon observations, interviews, data collected during focus groups, survey responses and other anecdotal data collection methods. The collection and analysis of anecdotal data is used in conjunction with other research tools to provide context, and to help explain findings based on quantitative data analysis. Unlike conclusions derived from other types of analysis in this report, the conclusions derived from anecdotal analysis do not rely solely on quantitative data. Anecdotal analysis also utilizes quantitative data to describe the context and examined social, political, and economic environment in which all businesses and other relevant entities applicable to the survey operate.*<sup>52</sup>

Disparity study protocols evolve over time, and more recent disparity studies typically include multiple methods for collecting qualitative data from a large set of respondents. As noted previously, verification of actual accounts of discriminatory behavior from a wide cross-section of key stakeholders is far superior to drawing upon a few select, unverified accounts. This is necessary to separate perception from reality. For example, in certain cases, firms and individuals that do not win a particular contract might feel the principal reason was discrimination, even if discrimination played no role in failing to secure the contract. By obtaining actual, verifiable accounts from multiple participants, criticisms about sample size and relying on only a handful of claims of discriminatory behavior are refuted and a bigger picture of actual contracting experiences emerge. In some cases, the benefit of the anecdotal evidence is to recognize that discrimination might not be the root cause of disparities, or alternatively, that race-neutral solutions might exist to alleviate perceptions of unfair treatment in public contracting. One report noted:

*It is essential to properly gather comprehensive anecdotal evidence that specifically addresses discrimination in a contracting market and discrimination that affects business formation and growth to support a government race and gender preference program. When gathering anecdotal evidence, researchers also must be able to distinguish between evidence of discrimination and a general lack of access.*<sup>53</sup>

<sup>51</sup> For example, in its disparity study for the Georgia DOT, BBC Research & Consulting also considered anecdotal evidence from other disparity studies conducted for Clayton County and City of Augusta, see 2012 Georgia Department of Transportation Disparity Study, BBC Research & Consulting, 6/2012, at J-3-J-5.

<sup>52</sup> Disparity Study for Denver Public Schools, MGT of America, October 17, 2014, at p. 6-1

<sup>53</sup> Connecticut State Disparity Study, the Connecticut Academy of Science and Engineering, Phase I, August 2013, p. 19.

In order to evaluate the key difference between discrimination and general lack of access, most disparity studies include viewpoints from both minority and majority firms. In this respect, the disparity study alleviates concerns about focusing too narrowly on a single viewpoint, while at the same time collecting additional anecdotal evidence to evaluate claims of discrimination. Traditional methods of surveys, personal interviews, focus groups, and public hearings provide a substantial amount of anecdotal evidence from a diverse population. The particular method utilized is often a function of the disparity study consultant, agency resources, and regulations in place requiring public input on the disparity study process. Nevertheless, the best types of anecdotal evidence will remain those accounts that are drawn directly from actual contracting participants who can share verifiable experiences with disparity study consultants.

## CHAPTER 4:

## Disparities and Marketplace Discrimination Exist

This section of the report summarizes the results of an investigation into contracting disparities and quantitative evidence observed in 100 disparity studies, summaries, and reports, collectively “the disparity studies” or “the set of disparity studies.” Appendix A of this report includes a list of each disparity study reviewed as part of the research effort. Identification of potential disparity studies entailed a thorough and comprehensive search of publicly-available studies posted on agency, consultant, or other websites. A greater focus was on disparity studies published in the last ten years to provide insight into the existing and recent public contracting landscape for minority business enterprises (MBEs). While the search was comprehensive, it does not purport to capture all publicly available disparity studies that might be available. Instead, the set of disparity studies represents a sufficient base upon which to analyze the methods, results and conclusions that disparity study consultants undertake to explore factors that cause and remedies that address contracting disparities facing MBEs.

This chapter explores the disparity ratios contained in the set of disparity studies, as well as the marketplace discrimination evidence derived from regression analysis and other quantitative measures.

### DESCRIPTION OF THE SET OF DISPARITY STUDIES

Disparity studies used in this report are drawn from a search of publicly available websites for local and state contracting agencies, consultancies, or other websites. The process for identifying disparity studies involved general internet searches on key terms and combinations of key terms, including “disparity,” “disparity study,” “contracting disparities,” “anecdotal evidence,” “contracting,” “barriers,” and “discrimination.” In addition, studies were also identified through links in legal cases, articles and government notices. The results contained in this report do not exclude any studies that were identified through the internet search process. To that end, all studies in the set are publicly available, permitting other municipalities or interested parties to replicate the analysis contained herein.<sup>54</sup> The studies span a range of industries and geographic locations, and examine various program types depending on the agency for which the study was conducted. While some cities are represented multiple times in the set, the studies usually cover separate time periods or separate agencies within a municipality, such that there is not double counting of contracting data and disparity ratios.

<sup>54</sup> Appendix A lists each study and the associated hyperlink where the study is available. As of the publication of this report, two study links were no longer active, but the study or summary was still included.

Notable characteristics of the set of disparity studies include:

- The disparity studies covered state or local agencies in 31 different states, including representation from every major Census region.
- 20 different lead organizations authored the disparity studies, dominated by several large private, for-profit consultancies. However, most studies involved a team approach, including the use of small or disadvantaged business enterprises as part of the research team.<sup>55</sup>
- Consistent with the research goal of examining contemporary data, most studies encompassed more recent time periods. Of the 100 studies, 40 were published since the beginning of 2011, and 81 were published since 2007.<sup>56</sup>

As noted in the previous chapter, disparity studies include a myriad of combinations for computing and reporting disparity ratios and results. Indeed, while there were consistent reporting patterns among different studies by a primary consultant, there were often large differences in reporting patterns across consultants.<sup>57</sup> The lack of standardization in how consultants calculate and present disparity ratios underscores the importance of interpreting disparity study results appropriately. Specifically, the results of any disparity study are rooted in the assumptions and data that consultants use for the particular contracting agency and behavior under investigation. As a result, the 100 studies reviewed for this report include studies conducted by different consultants for different government agencies, across many different geographic areas, related to different time periods and using different methodologies. As noted in Chapter 3, different methods exist for calculating utilization, availability and capacity, including differences in underlying product and geographic market definitions. In addition, numerous differences exist in reporting disparity ratios, including:

- Selection of time period for computations: Some studies computed disparity ratios for each calendar or fiscal year under investigation (e.g., individual ratios for 2010, 2011, and 2012). Other studies only reported an aggregate disparity ratio for multiple years (e.g., a single disparity ratio encompassing contracting data for 2010 through 2012).
- Different grouping of minorities: Some studies focused solely on minority business enterprises (MBEs), others disaggregated data and disparity ratios by specific ethnic and racial groups. However, even in these instances different consultants often treated the "Asian American" group differently, where some consultants grouped all "Asian Americans" together, while other consultants reported Pacific Asian Americans and

---

<sup>55</sup> Primary lead organizations with greatest representation included BBC Research & Consulting, D.J. Miller & Associates, D. Wilson Consulting, Griffin & Strong, Keen Independent Research, Mason Tillman Associates, MGT of America, and NERA (usually with Collette Holt Associates as part of the team).

<sup>56</sup> This also reflects that more recent studies were more likely to be publicly-available and linked on active websites. Older studies are often archived or not publicly-accessible via the internet.

<sup>57</sup> For example, consultancies like NERA and Mason Tillman Associates typically employed similar approaches in executing a disparity study, although methodological approaches differ when comparing a typical NERA study with a Mason Tillman Associates study. This does not mean that one study is necessarily "better" than the other, but reflects the dynamic and differing points of view that necessitate careful reading and interpretation of each study on its own merits.

Subcontinent Asian Americans separately. Some studies included data on Native Americans, while others did not. For the purposes of this study, the disparity ratio analysis does not include separate categories for Subcontinent Asians or Native Americans.<sup>58</sup>

- Different funding sources or geographic areas within the overall area of study: In certain cases, consultants reported different iterations of disparity ratios based on the source of funding and geographic area. For example, while a disparity study might include state-wide contracting for a particular Department of Transportation, the consultant would also report additional disparity ratios based on particular geographic regions within the state and whether the source of contracting dollars were federal, state or local, even though the primary report purpose might have been to compute a statewide disparity ratio to use in goal setting.

The computational and reporting differences prohibit a true “apples to apples” comparison of disparity ratios, given the unique characteristics applicable to each disparity study. Despite methodological and computational variations across studies, there are wide-ranging similarities in the disparity ratio results and findings of each study. Foremost is the notable observation of substantial contracting disparities prevalent for minority-owned businesses in each of these studies, often for similar ethnic and racial groups across similar industries and over many years. This includes the underutilization of MBEs in public contracting in multiple geographic areas and industry sectors such as construction, professional services, other services and architecture and engineering.<sup>59</sup>

In order to illustrate these broad and extensive disparity observances, this study relied on a canvassing effort that cataloged 2,385 disparity ratios drawn from the selected set of disparity studies. It is important to recognize that these disparity ratios do not represent the entire set of all disparity ratios included in each report. Rather, the cataloging process involved a top-down approach to capture the disparity ratios consultants presented in executive summaries, findings and conclusions that addressed potential contracting disparities in a particular geographic and product market for a particular racial or ethnic minority classification, or across all MBEs or M/WBEs. In this respect, these are the primary disparity ratios that consultants are using to inform readers of the nature and scope of potential underutilization of affected businesses. Nevertheless, the set of 2,385 disparity ratios includes observations at different levels of

---

<sup>58</sup> The reason for exclusion was due to infrequent observations and minor contracting amounts (i.e., number and dollars) reported for these groups of businesses. It does not imply that discrimination either exists or does not exist for these groups of business owners.

<sup>59</sup> The most robust disparity studies separated architecture and engineering as a different product market from professional services, such that there is no double counting inherent in computing disparity ratios for these two industrial sectors.

aggregation, which lessens or prohibits direct comparison but still allows recognition that disparities exist.<sup>60</sup>

Furthermore, as noted above, some studies include numerous disparity ratio iterations that are subsets of an overall disparity ratio summary. As a result, these data are not “new” ratios given that the data are already subsumed in the overall disparity ratio calculation. This study does not rely on the subsets of observations in presenting disparity ratios, as every effort was made to avoid the influence of double counting in disparity ratio reporting for each study.<sup>61</sup> Indeed, this is an area for future investigation, where a more comprehensive set of data of all disparity ratios, including specific characteristics of each ratio, can be generated and distilled for additional analysis.

For the purposes of this study, the analysis of disparity ratios provides the foundation for analyzing anecdotal evidence designed to elucidate the core causes of MBE underutilization in public contracting, including both discriminatory and non-discriminatory factors. An analysis of potential discriminatory factors assumes a priori that disparities exist. The next few sections of the report provide confirmation that disparities, as reported in the selected set of disparity studies, are widespread and pervasive. Furthermore, while there may be conformation bias<sup>62</sup> inherent in the studies, they nevertheless provide the context for illustrating that MBEs are substantially underutilized in the relevant geographic areas and industries, sufficient to use these areas as the basis for exploring causal factors identified in Chapter 5.

## OBSERVED DISPARITIES IN MINORITY CONTRACTING

A general trend in the review of disparity study results is that disparities in contracting are extensive among minority business enterprises regardless of race, ethnicity, industry, or geography. Figure 4-1 summarizes the overall findings with respect to the split of contracting disparity ratios among categories of minority-owned firms.

<sup>60</sup> One area of concern is whether or not aggregation over multiple years inadvertently excludes observations where disparities would not exist. For example, if a study concluded a disparity for African American prime construction contractors in a 2012-2014 aggregate time period, it is possible that an annual investigation might indicate that a disparity existed in 2012, but not in 2013 or 2014, yet the 2012 results drive the overall “aggregate” result. In many instances, consultants aggregate data over multiple years not to obscure results, but to increase the robustness of the results by including more data to avoid any outliers.

<sup>61</sup> The one area that includes “double counting” by definition is reporting an aggregate MBE or M/WBE figure, which includes data on all ethnic and racial minority groups.

<sup>62</sup> As discussed previously, the selected set of studies is not an independent representative sample of all public contracting in the United States. In many cases, the particular state or local agency may have commissioned a study to decide whether to continue or modify an existing race-conscious program which assumed a previous determination of disparity in contracting. Although the studies reviewed were not subject to litigation, it nevertheless raises questions about whether the study was more likely to find a disparity as compared to a situation where a random agency and market is selected for investigation.

FIGURE 4-1

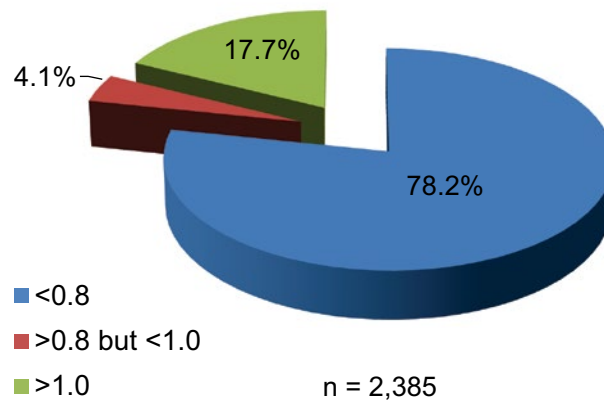
**DISPARITY RATIO DISTRIBUTION FOR MINORITY-OWNED BUSINESSES**

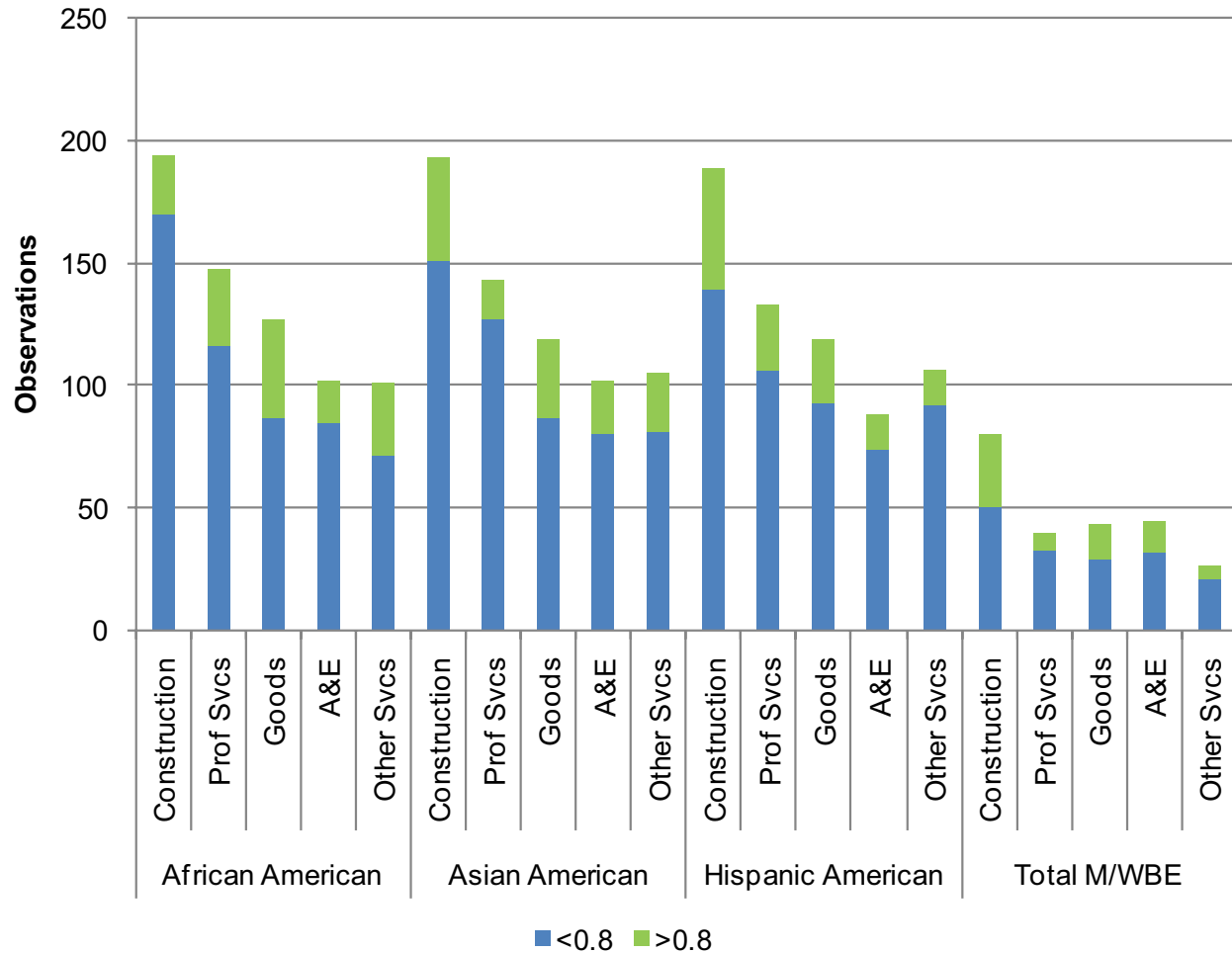
Figure 4-1 shows that 78.2 percent of contracting disparity ratio observations were less than 0.8 (or 80 on a scale of 100), indicating a “substantial” disparity. In addition, over 82 percent of observations were below 1.0, indicating a disparity.

Analysis of the contracting disparities by industry, race, and ethnicity mirror the overall trend of substantial disparities for minorities. Figure 4-2 presents data based on racial/ethnic group and industry, aggregated across all disparity study time periods. The figure contains information on African Americans, Asian Americans, Hispanic Americans and overall M/WBEs in the major industries of construction, professional services (“Prof Svcs”), goods and supplies (“Goods”), architectural and engineering (“A&E”) and other services (“Other Svcs”).<sup>63</sup>

<sup>63</sup> Most studies separated architecture and engineering construction-related services from the overall category of professional services, using NAICS codes and specific information about firms and contractors to determine the appropriate product market.



FIGURE 4-2  
DISPARITY RATIO OBSERVATIONS BY INDUSTRY  
AND MINORITY CATEGORY



The red portion of Figure 4-2 includes all disparity ratios in excess of 0.8, including those that exceed 1.0. In all cases, the number of ratios less than 0.8 exceeds the number greater than 0.8. As a result, there were no observations where an ethnic or racial minority had a larger number of disparity ratios in excess of 1.0 (i.e., overutilization) when examining the major industry groupings of construction, professional services, goods, or architectural and engineering services. Table 4-1 summarizes the same data in tabular form, but distinguishes between observed disparities (less than 1.0) and substantial disparities (less than 0.8). The largest absolute number of observed substantial disparity ratios was for African American owned construction businesses, with 170 observations less than 0.8. The groups and industry with the highest proportion of substantial disparities were Asian American professional services, African American construction services, and Hispanic American architecture and engineering services.

TABLE 4-1

**DISPARITY RATIO OBSERVATIONS BY MINORITY CATEGORY AND INDUSTRY**

Group	Industry	Disparity Ratio Observations			Percent Less Than:	
		Count	< 1	< 0.8	1	0.8
African American	Construction	194	173	170	89.2%	87.6%
	Professional Services	147	120	116	81.6%	78.9%
	Goods and Supplies	127	90	86	70.9%	67.7%
	Architecture & Engineering	102	88	85	86.3%	83.3%
	Other Services	101	73	71	72.3%	70.3%
Asian American	Construction	193	159	151	82.4%	78.2%
	Professional Services	143	132	127	92.3%	88.8%
	Goods and Supplies	119	89	86	74.8%	72.3%
	Architecture & Engineering	102	87	80	85.3%	78.4%
	Other Services	105	88	81	83.8%	77.1%
Hispanic American	Construction	189	149	139	78.8%	73.5%
	Professional Services	133	110	106	82.7%	79.7%
	Goods and Supplies	119	98	93	82.4%	78.2%
	Architecture & Engineering	88	76	74	86.4%	84.1%
	Other Services	106	94	92	88.7%	86.8%
Total MWBE	Construction	80	64	51	80.0%	63.8%
	Professional Services	40	34	33	85.0%	82.5%
	Goods and Supplies	43	35	29	81.4%	67.4%
	Architecture & Engineering	44	35	32	79.5%	72.7%
	Other Services	26	22	21	84.6%	80.8%

As discussed previously, numerous disparity studies include analysis into whether observed disparity ratios are statistically significant. For those disparity studies that explicitly indicated whether a disparity ratio was statistically significant or not, approximately 65 percent of all disparity ratio observations were classified as statistically significant by study authors. However, this may be a conservative estimate since some disparity study consultants did not report significance at the individual disparity ratio level, but instead presented significance at an aggregate level through simulation. Lastly, 99 percent of statistically significant disparities identified by study authors were less than 0.8, lending strong support for discriminatory behavior in contracting.

The median disparity ratio across all observations was only 0.19, which is considerably lower than the 0.8 threshold for defining a substantial disparity.<sup>64</sup> When disaggregating the data by race, ethnicity, and industry, the median values were lower than the overall median except for the combined M/WBE group. Table 4-2 illustrates the influence of WBEs on the overall

<sup>64</sup> Approximately 31 percent of observed disparity ratios are zero, indicating that there is no utilization of a particular ethnic or racial group for a particular product market in a particular geographic area. These represent disparity ratios where one would expect minority representation, i.e., availability is not zero, despite utilization being zero. Nevertheless, even if one excludes disparity ratios of zero as potential outliers, the median disparity ratio is still 0.43, which indicates substantial underutilization of minority-owned businesses.

disparity results. Specifically, disparity ratios for WBEs are generally higher than those for MBEs, although both are often below 1.0 and 0.8.

TABLE 4-2

### MEDIAN DISPARITY RATIOS BY MINORITY CATEGORY AND INDUSTRY

Group	Industry	Count	Median
Asian American	Construction	193	0.072
	Professional Services	143	0.000
	Goods and Supplies	119	0.110
	Architecture & Engineering	102	0.036
	Other Services	105	0.039
African American	Construction	194	0.160
	Professional Services	147	0.205
	Goods and Supplies	127	0.293
	Architecture & Engineering	102	0.041
	Other Services	101	0.444
Hispanic American	Construction	189	0.126
	Professional Services	133	0.025
	Goods and Supplies	119	0.044
	Architecture & Engineering	88	0.003
	Other Services	106	0.034
Total MWBE	Construction	80	0.612
	Professional Services	40	0.550
	Goods and Supplies	43	0.560
	Architecture & Engineering	44	0.488
	Other Services	26	0.535

The data drawn from the disparity study review indicate substantial disparities not only in the aggregate, but also across subsets of different ethnicities, races, and industries. Furthermore, the disparities exist across different time periods and geographic regions. Disparities are also prevalent in periods and jurisdictions where race-based programs exist to purportedly support MBEs or DBEs in contracting.

## SUBCONTRACTING ANALYSIS

Many race-based programs focus on providing opportunities to MBEs via subcontracting goals. Subcontracting remains an important avenue for MBE business development and growth and warrants exploration with respect to contracting disparities. Yet, some disparity studies either failed to include subcontracting as a stand-alone analysis or aggregated subcontracting with prime contracting in the computation of disparity ratios. The previous chapter highlighted some of the reasons for a lack of subcontracting analysis, although it is largely driven by the lack of robust and accurate data at the subcontracting level. Nevertheless, most disparity studies

acknowledge the importance of investigating subcontracting and the studies that can draw upon the greatest resources often include subcontracting-specific analyses.

Studies with subcontract-level analyses typically involve the disparity study consultant working in tandem with the contracting agency to identify subcontracting activity. While the methodologies might differ based on data availability and a particular consultant, subcontracting analyses typically follow a similar pattern as prime contracting analyses. Specifically, the disparity study will compute both utilization and availability for MBEs but limited to subcontracting activity. With respect to utilization, many agencies do not have sufficient resources to track subcontracting activity. As a result, disparity study consultants often work with the agency to examine all prime contracts, or at least a representative sample of prime contracts, in order to “reconstruct” subcontracts issued by the agency in the relevant product markets.

Determining the availability of subcontractors is theoretically similar to determining availability of MBEs to act as prime contractors. However, given the differences in how disparity study consultants compute availability, there are also differences in computations of subcontractor availability. For those studies that separated subcontracting and prime contracting for MBEs and used a custom census, firms were typically asked if they performed as a subcontractor, prime or both. Those that replied either subcontracting or both are included in the subcontractor availability analysis. Other studies that rely on lists and the non-custom-census methods described in Chapter 3 often rely on past experience as a subcontractor in determining availability. For example, those MBEs that are active subcontractors on agency contracts satisfy the “willing” component of the “ready, willing and able” requirements.

Despite differences in treatment of subcontracting activity, disparity studies that included subcontracting as a stand-alone disparity analysis typically yielded results consistent with those observed at the prime level. As an illustrative example, Table 4-3 presents a summary of subcontracting disparity conclusions for a set of disparity studies conducted by Mason Tillman Associates (MTA), which typically included a uniform approach to analyzing subcontracting data and results.<sup>65</sup> Table 4-3 presents a summary of instances where MTA identified underutilization as indicated by a disparity ratio less than 1.0.

---

<sup>65</sup> While this research section highlights Mason Tillman Associates, many other disparity consultants and studies analyzed subcontracting activity on a stand-alone basis. In these cases, studies also took steps to ensure that double counting of subcontracting activity (e.g., as part of the prime analysis) was either acknowledge and/or addressed.

TABLE 4-3  
**SUBCONTRACTING SUBSET ANALYSIS**

**Subcontracting Analysis using Mason Tillman Associates Disparity Studies**

<b>Agency/Jurisdiction</b> (a)	<b>Year of Report</b> (b)	<b>Total Disparity Observations</b> (c)	<b>Disparities Indicating Underutilization</b> (d)	<b>% of Total</b> (e) = (d)/(c)
Alameda County	2004	9	8	89%
Broward County Schools	2015	6	6	100%
City of Arlington	2010	3	3	100%
City of Cincinnati	2015	6	4	67%
City of Davenport	2009	2	2	100%
City of Houston	2006	6	6	100%
City of Jacksonville	2013	6	3	50%
City of New York	2005	9	9	100%
City of St. Louis	2015	2	2	100%
Commonwealth of Pennsylvania	2007	6	6	100%
Illinois DOT	2011	2	2	100%
Illinois Toll Highway Authority	2011	6	6	100%
San Francisco BART Authority (w/goals)	2009	6	6	100%
San Francisco BART Authority (w/o goals)	2009	6	6	100%
Washington Suburban Sanitary Commission	2010	9	9	100%
<b>Total</b>		<b>84</b>	<b>78</b>	<b>93%</b>

The data indicate that in almost every case (78 out of 84), MBEs were underutilized on subcontracts, indicating a disparity less than 1.0. In addition, MTA identified that 54 percent of the underutilized observations were statistically significant.

## QUANTITATIVE DATA ON MARKETPLACE DISCRIMINATION

The existence of a numerical disparity drawn from public contracting data does not equate to a conclusion of discrimination. To bridge this causal gap, disparity study consultants use a combination of quantitative and qualitative analyses to explain *why* disparities arise in the context of public contracting, including the extent to which discrimination drives disparities. One area of investigation focuses on a statistical investigation of the possible existence of discrimination in the private sector where contracting activity takes place.

In these cases, the presence of discrimination in the private sector provides additional information on the root causes of potential contracting disparities, regardless of the extent of public intervention. In addition, an analysis of private sector activity may also indicate bias in the business availability calculations, where the presence of prior discrimination can suppress

the number of available MBEs in the marketplace. This will lead to an underrepresentation of MBEs in the disparity ratio computation for the public agency contracting activity. The remainder of this chapter discusses how disparity studies utilize economic data to analyze marketplace discrimination, while the next chapter focuses on qualitative data indicating both discriminatory and non-discriminatory reasons for observed disparities.

The legal precedent discussed in Chapter 2 provides the foundation for examining marketplace data to determine whether public agencies passively participate in markets influenced by discrimination. Specifically, both *Adarand VII* and *Concrete Works IV* discussed the importance of analyzing evidence of marketplace discrimination against MBEs.<sup>66</sup> This is because market-based evidence of discrimination can be used to support a compelling interest in remedying past or present discrimination through the use of affirmative action legislation.<sup>67</sup> In other words, the analyses seek to address the fundamental question of whether or not the market functions properly for all businesses, regardless of the race of business ownership. If discrimination prevents a well-functioning market, there is a demonstrated need for government intervention in those affected sectors where the federal, state or local agency procures goods and services to ensure that the government does not passively participate in established patterns of discrimination.

Disparity studies typically include evidence of marketplace discrimination through statistical analyses of private sector data, given that these contracting activities are generally not subject to race-conscious or affirmative action programs. As noted in one disparity study:

*Statistical examination of disparities in the private sector of the relevant geographic market is important for several reasons. First, to the extent that discriminatory practices by contractors, suppliers insurers, lenders, customers, and others limit the ability of [MBEs] to compete, those practices will impact the larger private sector as well as the public sector. Second, examining the utilization of [MBEs] in the private sector provides an indicator of the extent to which [MBEs] are used in the absence of race- and gender-conscious efforts, since few firms in the private sector make such efforts. Third, the Supreme Court in Croson and other courts acknowledge that state and local governments have a constitutional duty not to contribute to the perpetuation of discrimination in the private sector of their relevant geographic and product markets.*<sup>68</sup>

Regression analysis is one of the most commonly employed statistical methods used to analyze private sector data in the context of disparity studies. As noted in Chapter 3 and Figure 3-6, the

<sup>66</sup> *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10<sup>th</sup> Cir. 2000) and *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F. 3d 950 (10<sup>th</sup> Cir. 2003).

<sup>67</sup> *Ibid*, at 1166-67 (*Adarand VII*) and at 976 (*Concrete Works IV*).

<sup>68</sup> *The State of Minority- and Women-owned Business Enterprise: Evidence from Missouri*. NERA Economic Consulting. June 28, 2012, p. 120.

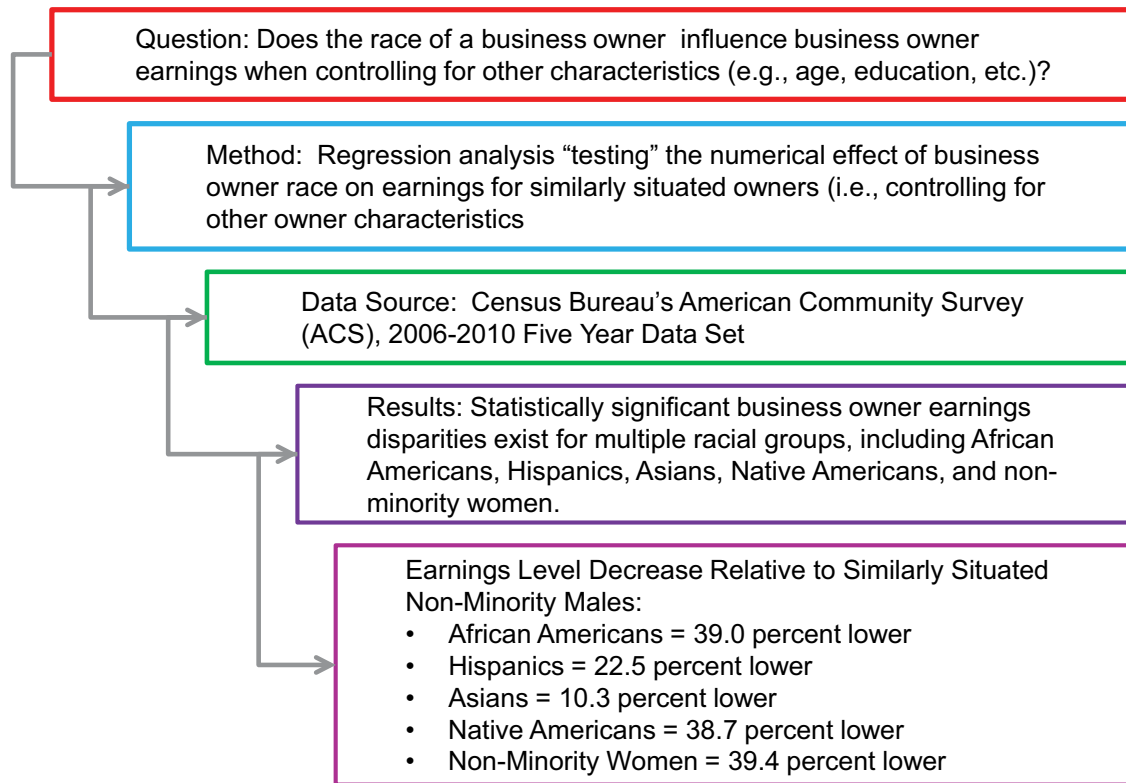
regression analysis of marketplace discrimination typically involves analysis of the following areas:

- Business formation rates between minorities and non-minorities;
- Self-employment or business earnings between minority business owners and non-minority business owners;
- Analysis of commercial loan denial rates for minority and non-minority business owners;
- Minority and non-minority employment representation among certain industries, including management positions; and
- Home ownership rates and mortgage denial rates among demographic groups.

At the heart of regression analysis is the ability to estimate the effect of a set of independent variables (e.g., characteristics such as age, race, education, etc.) on an outcome variable of interest (e.g., business formation rates or earnings). As a simple example, consider an analysis of business owner earnings for a set of companies or individuals in similar geographic and product markets at a similar point in time. By controlling for similarities in other characteristics such as education and labor force experience, one can determine whether any differences exist in earnings due to other factors, such as race and ethnicity. These analyses demonstrate the quantitative effects of discrimination on business formation rates and earnings and provide evidence to support the need for race-conscious contracting programs, designed to remedy the effects of past or ongoing discrimination.

Figure 4-3 provides an example of the regression modeling that National Economic Research Associates (NERA) undertook as part of its disparity study for the State of Missouri. In this example, NERA hypothesized that multiple factors influence business owner earnings, among them, race and ethnicity. It used American Community Survey data to evaluate the quantitative effects of racial indicator variables on business owner earnings and found that, consistent with an inference of discrimination, race negatively influenced business owner earnings for multiple racial groups while controlling for other factors. That is, all other factors being equal, the regression analysis demonstrates that minority business owners earned less than their comparable non-minority counterparts, consistent with a finding of discrimination. The regression data and findings were consistent across multiple product and geographic markets.

FIGURE 4-3  
REGRESSION MODELING AND RESULTS EXAMPLE



The example demonstrates the utility of regression analyses, which when controlling for differences in other characteristics, can provide a reasonable estimate of the impact that race has on observed differences in business earnings. A disparity study can use regression to show that discrimination exists in the private sector, which supports potential government intervention through a race-conscious program for public contracting. For example, the NERA analysis found that African American business owners earned 39 percent less, on average, than similarly situated non-minority males (e.g., males that had similar ages, level of education and other ownership characteristics), such that the difference or disparity is due to the race of the business owner. The result was statistically significant, such that a strong inference of discrimination exists with respect to the relationship between race and business owner earnings. NERA computed similar results when controlling for the product market (e.g., Construction) or geographic market (e.g., the Missouri DOT market area in that particular study). As to the impact of potential discriminatory behavior, NERA succinctly summarized the major issues related to its regression analysis of business owner earnings:



*As was the case for wage and salary earners, minority and female entrepreneurs earn substantially and significantly less from their efforts than similarly situated nonminority male entrepreneurs. The situation, in general, differs little in the [relevant geographic] market area than in the nation as a whole. These disparities are a symptom of discrimination in commercial markets that directly and adversely affect DBEs. Other things equal, if minorities and women are prevented by discrimination from earning remuneration from their entrepreneurial efforts comparable to that of similarly situated nonminority males, then capital reinvestment and growth rates may slow, business failure rates may increase and, as demonstrated in the next section, business formation rates may decrease. Combined, these phenomena result in lower DBE availability levels than would be observed in a race- and gender-neutral market area. As this chapter demonstrates, discrimination depresses business owner earnings for women and minority entrepreneurs. Business owner earnings, however, are often directly related to whether an owner has the capital to reinvest (firm size), how long a firm survives (firm age), and how much money a firm takes in (individual firm revenues). These observations illustrate why employment size, years in business and individual firm revenues are especially inappropriate factors to consider in any sort of "capacity" type analysis.<sup>69</sup>*

Disparity studies often include multiple analyses using a variety of different dependent variables, such as wages, business formation, or access to credit (via loan denials or interest rates). In each case, the regression model may differ in terms of explanatory variables, but the purpose of the model is to determine whether marketplace discrimination exists in areas where a public agency procures goods and services. Disparity studies that include regression results demonstrating that minority business status is a statistically significant factor leading to observed disparities help build the case for discrimination in the marketplace. Thus, even if an agency does not actively contribute to discriminatory behavior, it can implement programs designed to remedy its passive role and achieve greater parity in contracting.

Disparity studies rely on multiple data sources to collect information on formation, earnings, loan denials, and other business operations. These sources include the ACS, the U.S. Census Bureau's Survey of Business Owners and Self-Employed Persons (SBO), the Federal Reserve Board's Survey of Small Business Finances (SSBF), and mail or telephone surveys conducted for a specific study. Although not uniform across all disparity studies, the majority of the studies in the set that utilized quantitative data on marketplace discrimination found that minorities and minority business enterprises:

- Earned significantly lower wages than similarly situated non-minority male counterparts in relevant markets;
- Had significantly lower business earnings than similarly situated non-MBEs in relevant markets;

---

<sup>69</sup> Ibid, p. 136.

- Had lower rates of business formation than non-minority males;
- Were more likely to be denied commercial or personal loans than similarly situated non-minority males or non-MBEs; and
- Had lower revenues and market shares than similarly situated non-MBEs.

Several disparity studies also considered issues such as employment within particular industries, the proportion of employees in management positions, general population statistics, and other business characteristics such as education, age of business, and fear of loan denials (i.e., without actually applying and being denied), all of which affect the ability of minority-owned businesses to compete for and win public contracts.



## CHAPTER 5:

## Anecdotal Analysis and Summary

One of the fundamental objectives of this research report is to identify and characterize factors and barriers that lead to contracting disparities for MBEs, including identifying which factors and barriers can arise due to discrimination. As discussed in the previous chapter, a review of existing publicly-available disparity studies showed the widespread occurrence of substantial contracting disparities, indicated by a disparity ratio less than 0.8 and often with statistical significance. Yet, a numerical disparity alone does not equal discrimination, which is a primary reason why disparity studies include additional analysis aimed at investigating discrimination and causation. This includes not only the regression analyses discussed in the previous chapter, but also valuable systematically-collected anecdotal evidence that helps characterize instances of discrimination and areas where contractors face barriers in public contracting independent of racial or ethnic preferences. This chapter explores the relationship between anecdotal evidence, observed disparities, and discrimination, as drawn from the set of disparity studies. The chapter also includes selected anecdotes from disparity studies, which provide context and illustrate the depth of the barriers identified by and the experiences of affected MBEs.

### IMPORTANCE OF ANECDOTAL EVIDENCE IN SUPPORTING RACE-BASED PROGRAMS

Anecdotal findings provide insight into the “why” of disparities and lend support to the use of both race-neutral and race-based remedial programs. Anecdotal evidence does not establish the predicate for race-conscious programs, but instead, aids policymakers in evaluating whether a contracting program is needed and if so, that it is narrowly tailored. Several patterns of exclusionary behavior in public contracting have emerged over time, including instances of outright discrimination on the part of non-MBE prime contractors and public agencies.<sup>70</sup> Anecdotal accounts of discrimination and exclusionary behavior serve to provide the context that disparity studies seek regarding contracting disparities. As noted by one prominent disparity study consultant:

*Some courts and other observers have asserted that [anecdotal] findings such as [these] tell us nothing about discrimination against M/WBEs since, even though they are current, even though they come directly from the businesses alleging disparate*

---

<sup>70</sup> For example, *Association of General Contractors v. California Department of Transportation*, 2013 WL 1607239 (9<sup>th</sup> Cir., 2013) details instances of M/WBEs told that they were not qualified, although they were later found to be qualified when evaluated by outside parties and harassment of M/WBEs by an entity's personnel to discourage them from bidding on an entity's contracts.

*treatment, even though they are restricted to the relevant geographic and product markets, even though they are disaggregated by procurement category, and even though they are disaggregated by race and sex, they still do not compare firms of similar size, qualifications, or experience... Size, qualifications, and experience are precisely the factors that are adversely impacted by discrimination. [emphasis added]*<sup>71</sup>

Chapter 3 covered the general aspects of a strong anecdotal evidence gathering process, including gathering information from not only qualified minority contractors, but also from non-MBE contractors.<sup>72</sup> Exploring contracting barriers and the impact of discriminatory or exclusionary behavior using qualitative data also includes identifying and cataloging specific, verifiable instances of discrimination within the relevant jurisdictions and market area,<sup>73</sup> discussing the harm that the improper conduct has inflicted on the businesses in question, and revealing that discriminatory exclusion and impaired contracting opportunities are systemic rather than isolated or sporadic. Disparity studies that adhered to the aforementioned requirements yielded anecdotal accounts and findings that were more transparent and complete than studies with less rigorous anecdotal approaches.

## DISPARITY STUDY REVIEW FINDINGS ON COLLECTION METHODS

This research project included a review of 100 disparity studies and summaries, 86 of which explicitly implemented a methodology to obtain qualitative data on contracting barriers and exclusionary practices via anecdotal accounts. As noted in Chapter 3, there are different methods to collect anecdotal evidence and the methods used to collect anecdotal data varied by study and consultant. The most prevalent methods included personal interviews, focus groups, public hearings, surveys, and submission of written testimony. Where possible, consultants verified accounts and pooled the results of multiple anecdotal data collection mechanisms to determine the prevalence of the barriers and/or discrimination detailed. This ensures that the views of a single contractor are not deemed “representative” by the consultants.<sup>74</sup> Figure 5-1 presents a tabulation of the percentage of studies that included each anecdotal data collection mechanism.

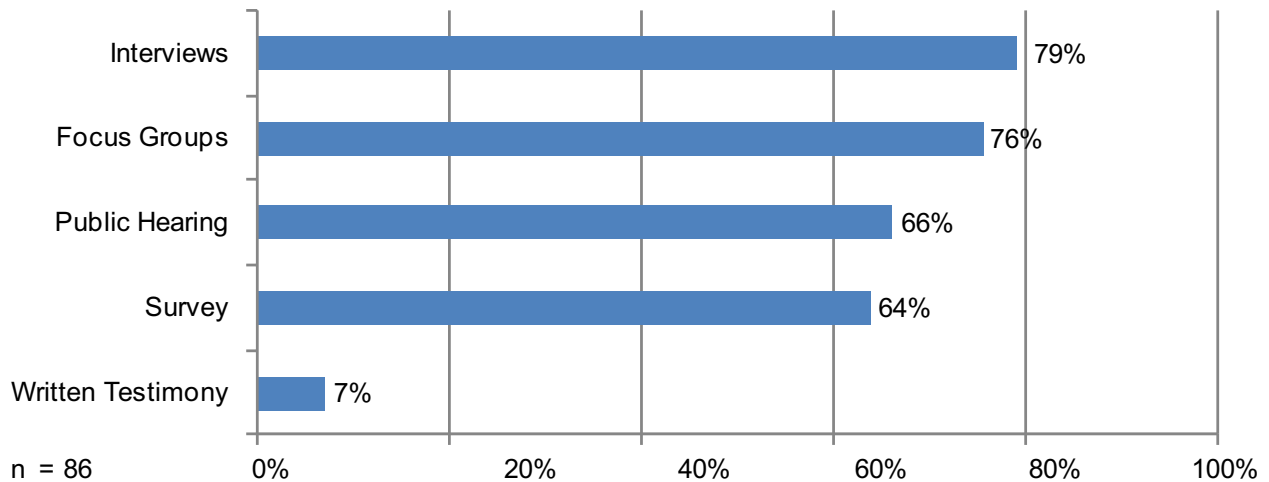
<sup>71</sup> NERA, The State of Minority- and Women-Owned Business Enterprise: Evidence from Cleveland, Prepared for the City of Cleveland, December 24, 2012, p. 274.

<sup>72</sup> In addition, many of the studies with more detailed anecdotal evidence sections included input from industry and trade groups, as well as public procurement officials. While these may not reflect a first-hand account of discriminatory behavior, soliciting input from these other groups can help support general patterns or accounts of discrimination.

<sup>73</sup> As noted by one disparity consultant, “The probative value of anecdotal evidence of discrimination increases when it comes from active businesses in the relevant geographic and procurement markets. The value of such evidence increases further when it comes from firms that have actually worked or attempted to work for the public sector within those markets”, *Race, Sex, and Business Enterprise: Evidence from Augusta, Georgia*. NERA Economic Consulting. September 4, 2009, p. 250.

<sup>74</sup> There are conflicting opinions regarding the importance of verifying anecdotal accounts in the case law and literature.

FIGURE 5-1

**DISTRIBUTION OF ANECDOTAL DATA COLLECTION MECHANISMS**

There is no single preferred method for collecting anecdotal evidence. The legal precedent and existing disparity studies often focus on the quality and breadth of information shared via qualitative data collection, while also ensuring that a sufficient amount of evidence is collected. Indeed, there are advantages and disadvantages to each method, as summarized in Table 5-1. However, the most robust and reliable disparity studies incorporate multiple data collection techniques to ensure collection of a wide range of anecdotal experiences from all types of contracting participants. This alleviates concerns that the anecdotal evidence is merely a summary of perceived instances of discrimination from disgruntled bidders who might have lost out on a contract for any number of reasons apart from discrimination. With a large enough set of reliable anecdotal accounts, disparity consultants can analyze prevalence and themes to explore core barriers and issues faced by MBEs in contracting with a particular agency.

TABLE 5-1

**SUMMARY OF ANECDOTAL EVIDENCE COLLECTION METHODS**

<b>Method</b>	<b>Advantages</b>	<b>Disadvantages</b>
<i>Personal Interviews</i>	Anonymity First-hand Personal Account Allows Discussion	Small Sample Size Resource Intensive
<i>Surveys</i>	Anonymity Large Sample Size Provides Quantitative Results	Resource Intensive No Additional Discussion Statistical Rigor Issues
<i>Focus Groups</i>	Accessible to Multiple Participants Can Select Specific Participants Can Control Discussion	Less Anonymity Subject to Bias (Groupthink) Resource Intensive
<i>Public Hearings</i>	Accessible to Everyone Can Solicit Numerous Viewpoints Relatively Resource Efficient	Can Lack Control of Discussion Lack of Anonymity

As shown in Table 5-1, surveys and personal interviews provided a substantial amount of anonymity to providers of anecdotal evidence, which allows individuals to provide honest and detailed accounts, without fear of any perceived or potential repercussions.<sup>75</sup> Anonymity is important, given that personal interviews and surveys allow participants to make comments that will not be challenged by peers or panelists as in the case of focus groups or public hearings. In contrast, focus groups and public hearings offer less anonymity, but can be a more cost-effective way to obtain anecdotal accounts from a greater number of potential respondents in a single setting. Focus groups permit consensus building and discussion of major issues, as well as corroboration, which provides a clear picture of multiple perspectives on the issue being discussed. One drawback is that groupthink or bias could arise through the course of a focus group discussion.

Bias is a concern in collecting anecdotal accounts from interviews, focus groups, public hearings and also surveys. This includes both interviewer bias and response bias.<sup>76</sup> Interviewer bias arises when the disparity study consultant or interviewer phrases questions in a suggestive or leading manner, which elicits responses that confirm the political purpose of a question. Response bias occurs when a poorly constructed group of respondents is too homogeneous and not indicative of all potential respondents. Most disparity consultants recognize the potential for bias and are able to address these issues by using multiple techniques, including

<sup>75</sup> A Procurement Disparity Study of the Commonwealth of Virginia. MGT of America. January 12, 2004.

<sup>76</sup> Sullivan, John. Anecdotes as Evidence: Proving Public Contracting Discrimination in a Strict Scrutiny World. *Engage*, Volume 16, Issue 2, pp. 16-22.

a control group (i.e., disaffected individuals) and soliciting a representative set of verifiable accounts from a large enough sample of respondents.

Indeed, anecdotal evidence collection from the set of disparity studies was not limited to MBEs. In fact, 85 percent of the studies analyzed with anecdotal sections included anecdotal data collection from non-minority firms via surveys, personal interviews, focus groups, and public hearings. This provided a complete picture of exclusionary behavior, including identifying whether any common patterns were attributable directly to discrimination or were an issue for businesses without regard to race or ethnicity. As an example, if both MBEs and non-MBEs identified “receiving timely payment” as a critical barrier, there is less evidence that the matter is racially motivated and more evidence to suggest that the agency’s practices hamper all firms in the contracting process.

The overall credibility and validity of the set of disparity studies anecdotal evidence is supported by the measures most of the disparity study consultants took in ensuring that anecdotal accounts were drawn from reliable and verifiable sources. With respect to surveys, many studies relied on statistically significant random samples of respondents drawn from lists of businesses that either comprised the availability of firms in the relevant product and geographic markets or were actual recipients of prime or subcontracts from the procurement agency. One disparity study encompassed the typical operating procedure for a particular national consultancy to ensure the credibility of anecdotal evidence drawn from surveys:

*[W]e conducted a large scale survey of business establishments in the market area—both M/WBE and non-M/WBE—and asked owners directly about their experiences, if any, with contemporary business-related acts of discrimination. We find that M/WBEs in the City’s markets report suffering business-related discrimination in large numbers and with statistically significantly greater frequency than non-M/WBEs ... The mail survey sample was stratified by industry and drawn directly from the Master M/WBE Directory and the Baseline Business Universe compiled for this study. Firms were sampled randomly within strata. M/WBE firms were oversampled to facilitate statistical comparisons with non-M/WBEs.<sup>77</sup>*

This effort is typical of disparity study consultants invested in not only ensuring a representative sample of businesses for anecdotal inquiry, but also for developing reliable indicators that individual anecdotal accounts are representative of what other similar firms are experiencing when contracting or interacting with a particular agency. Similar verification procedures also exist for personal interviews and focus groups. Consider the process typically undertaken by another large, reputable disparity study consultant:

---

<sup>77</sup> “The State of Minority- and Women- Owned Business Enterprise in Construction: Evidence from Houston”, NERA Economic Consulting, 4/2012. P. 212-213.



*The initial stage of the interview process includes screening businesses for their interest in being interviewed. The screener collected basic demographic data and specific information to determine the relevant experiences of the business owners. The screener captured information regarding the interviewee's experience with discrimination and interest in relating those experiences to a trained interviewer. Anecdotal probes were used to solicit information from the interviewees who provided construction, professional services, including architecture and engineering, or supplies and services. The questions sought to determine if the business owner encountered or had specific knowledge of instances where formal or informal contracting practices had an adverse impact on small, minority, or women-owned businesses (S/M/WBEs) during the January 1, 2009, through December 31, 2013, study period. A total of 60 interviews were conducted with African American, Hispanic American, Asian American, Native American, and Caucasian female, and non-minority male business owners that provide construction, professional services, or supplies and services procured by the City.<sup>78</sup>*

In both examples illustrated by the two preceding quotations, the consultants employed a combination of a survey and personal interviews to raise the level of verification and increase credibility by focusing on multiple techniques of obtaining verifiable anecdotal evidence.

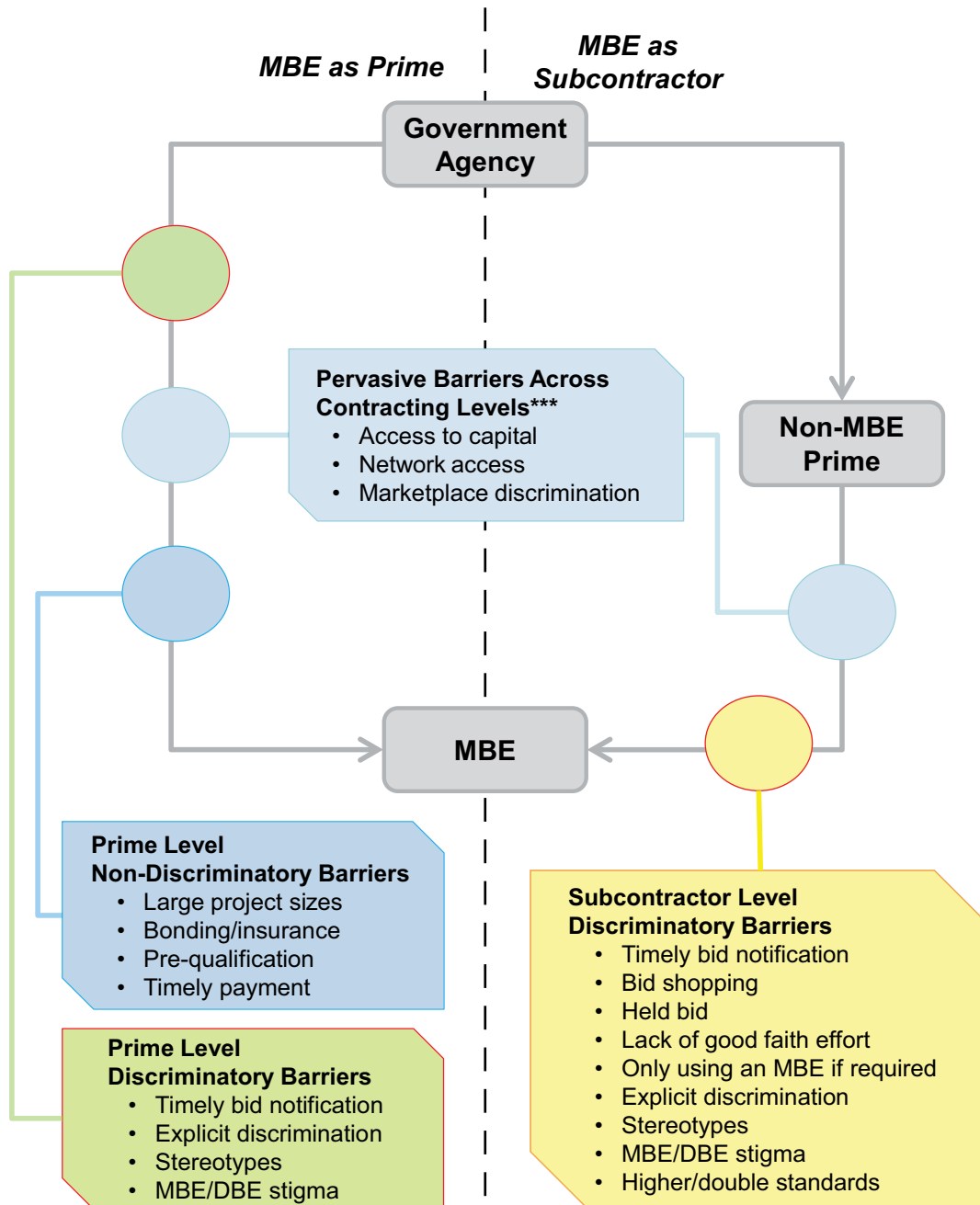
## **CHARACTERIZING BARRIERS IDENTIFIED IN EXISTING DISPARITY STUDIES**

The disparity studies' qualitative analyses identify a number of contracting barriers that lead to the observed disparity ratios for MBEs. These barriers arise in the context of market-wide issues facing MBEs, as well as those created as a direct result of the specific procurement process for a particular agency within a particular market. Many barriers are the direct result of discrimination, although other barriers affect businesses regardless of race or ethnicity. The goal of this section is to describe the primary barriers faced by MBEs to provide local governments and policy makers with information regarding systemic issues, noting the discriminatory nature of each barrier where appropriate. Figure 5-2 illustrates the different barriers identified in disparity studies, with a focus on where barriers arise within the public contracting framework. Figure 5-2 is not exhaustive of all barriers that MBEs may face in a particular jurisdiction.

---

<sup>78</sup> "City of Cincinnati Disparity Study", Mason Tillman Associates, 7/2015. – p. 10-3.

FIGURE 5-2

**BARRIERS FACED BY MBES IN PUBLIC CONTRACTING**

\*\*\*Access to Capital and Network Access barriers can arise due to both discriminatory and non-discriminatory reasons

As shown in Figure 5-2, a number of barriers are external to the specific contracting processes associated with a particular agency. These include barriers that arise due to discriminatory behavior with respect to access to capital, exclusionary networks, and outright prejudicial treatment of MBEs in a particular market. An important note is that just because a study does not identify a particular barrier in a market, that no MBEs in that market face that barrier.

Instead, the studies identify the most prevalent barriers and causes of underrepresentation. The regression analyses described in the previous chapter support the existence of these types of barriers and the anecdotal accounts drawn from the disparity studies provide additional confirmation.

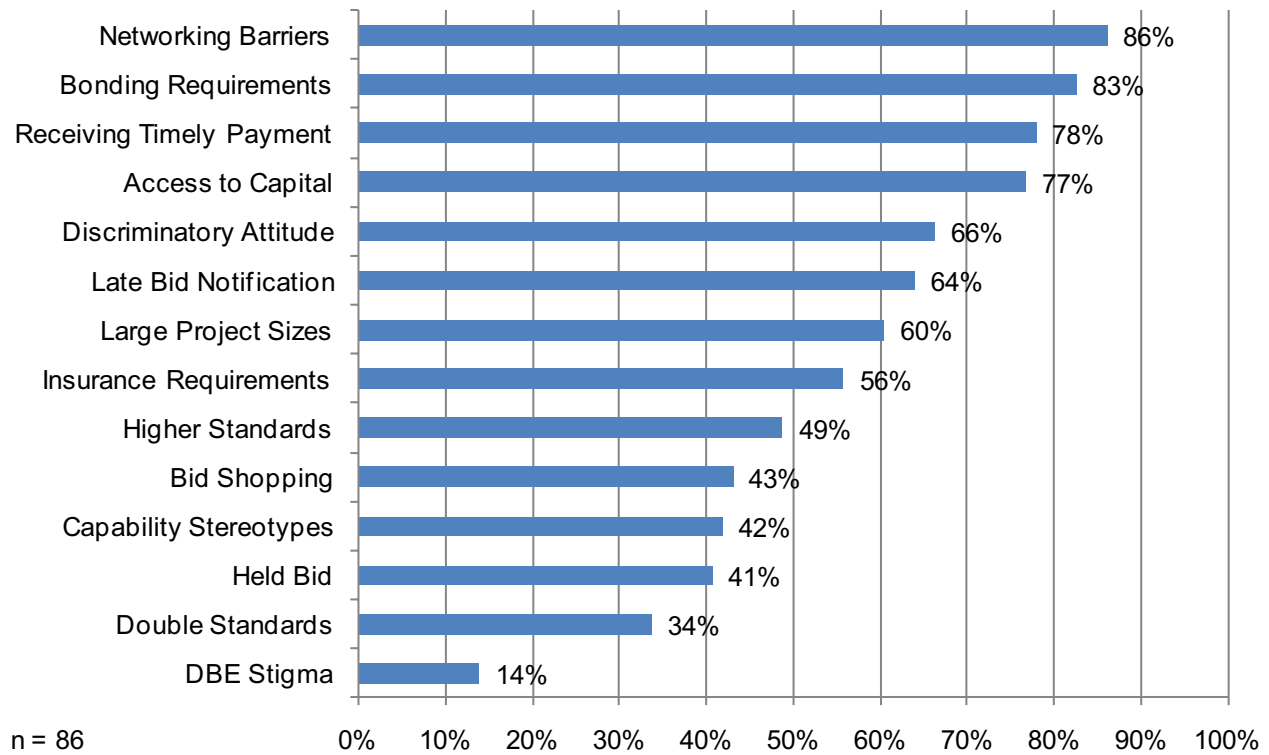
A separate set of barriers include those arising from a contracting agency's bid procedures and process. These include large project sizes, bid requirements related to bonding and insurance, bid timing, and timely payment once a contract is in place. The disparity studies' anecdotal evidence sections indicate that these barriers were often applicable to a large number of non-MBE businesses as well, such that race-neutral means were often recommended as a remedial solution. However, the anecdotal evidence noted the relationship between these bid-specific non-discriminatory barriers and market-based issues such as access to capital. In this respect, issues such as obtaining bonding and insurance are not universally free from the influence or impact of discriminatory behavior. Nonetheless, they are barriers that negatively affect the ability of MBEs to effectively compete in the public marketplace.

The most obvious barriers arising due to discrimination lie in actions by procurement agencies and non-MBE prime contractors (when considering MBE subcontractors) to purposely exclude or hinder MBE participation. These include outright prejudicial treatment, attitudes, stereotypes, implementing higher and double standards for MBEs, or manipulating the bid process. In these cases, the anecdotal accounts provide supporting evidence that discrimination drives contracting disparities facing MBEs.

The last category of barriers includes network access barriers, which represent a gray area concerning whether the barrier arises due to discrimination or as a result of general business practices. As such, this barrier is complicated to address and will require work from multiple parties. In certain cases, the exclusion of a particular racial or ethnic group from a network arises due to discriminatory behavior, but it can be very difficult to prove. In other cases, exclusionary behavior may arise because businesses and agencies tend to like who they have worked with in the past, regardless of whether that business is an MBE or non-MBE.

Figure 5-3 shows the frequency with which disparity studies included specific barriers identified by minority contractors. The most commonly cited barriers were networking barriers, restrictive contracting requirements (e.g., bonding levels), and receiving timely payment.

FIGURE 5-3

**FREQUENCY OF BARRIERS IDENTIFIED BY M/WBES**

The list of barriers in Figure 5-3 is not an exhaustive list and is limited to observations drawn from a review of the set of disparity studies that included anecdotal evidence. In addition, the disparity studies helped characterize where and how MBEs experienced these barriers and related exclusionary practices during the procurement process.

The remainder of this chapter provides an overview of each major barrier, identifying evidence of discriminatory behavior, as applicable. While some barriers were explicitly identified via the surveys administered and the analysis thereof, others were fleshed out in conversations as part of interviews, focus groups, and public hearings.

**NETWORKING BARRIERS**

Nearly every disparity study reviewed identified contracting disparities arising due to MBEs' lack of access within social entrepreneurial networks colloquially referred to as "the good ole boy" or "good old boys" network. Yet, the issue of exclusionary networks does not lend itself to a simple, direct conclusion of active discrimination on the part of procurement agencies or non-MBE prime contractors. One of the most critical challenges facing disparity study consultants (and readers of these studies) is how to interpret discrimination as opposed to general lack of access due to business conditions, where the latter point could have an impact on any business,

regardless of race or ethnicity. Regardless of the source, MBE's general lack of network access is a problem across agencies and geographies.

Disparity studies typically present anecdotal evidence that characterizes the network access barrier as one where an MBE might not obtain a contract due to the following factors:

- Informal relationships among agencies and majority firms that yield preferential treatment in bid reviews;
- "Friends help friends" where decisions of "who to work with" lie in preexisting relationships that can be personal as well as professional;
- Lack of information on informal networks, such that MBEs are unable to cultivate these relationships;
- Majority prime contractors dealing directly with agencies to determine upcoming projects and bid conditions to the detriment of MBEs; and
- Prejudicial treatment by agencies or primes in not selecting an MBE to do the work.

The most obvious cases of exclusionary access due to discrimination arise in the outright unjust or prejudicial treatment of firms based on racial or ethnic grounds. In this case, the procurement official or majority prime elects to exclude the MBE from the networks required to succeed in contracting, based primarily on the fact of minority-ownership. Firms are acutely aware of these challenges, as noted from the anecdotal evidence collected in the disparity studies reviewed. For example, in a disparity study conducted for the municipality of Saint Paul, Minnesota, a nonminority male participant noted that he "knows there's an informal network in Saint Paul that gives advantages to certain businesses but does not know how it operates."<sup>79</sup> Others in the same study and in the remaining studies echoed his sentiment, noting that "friends help friends," which excludes firms that are not well-established in the local network. These sentiments are echoed throughout the set of studies and are not a *prima facie* indication of discrimination, but raise the level of attention necessary to understand how each network might work. As noted in another study:

*I think that sometimes the majority of times, more work is won between the hours of five and eight than eight and five.*<sup>80</sup>

This statement is indicative of the difficulty of segregating causal factors of exclusionary networks between race-based reasons (i.e., discrimination) versus race-neutral factors (i.e., impacts all business owners). The issue becomes one of how companies build trust, relationships, and social capital on a professional and personal level. If prejudice and bigotry inhibit the ability to cultivate these relationships, then the anecdotal evidence supports remedial efforts through the use of race-based contracting programs.

<sup>79</sup> A Disparity Study for the City of Saint Paul and the Saint Paul Housing and Redevelopment Authority. MGT of America. August 4, 2008, p. 7-28.

<sup>80</sup> Race, Sex, and Business Enterprise: Evidence from Augusta Georgia. NERA Economic Consulting. September 4, 2009, p. 259.

Many interviewees who act as subcontractors reported that they often secure work with prime contractors through their past relationships with those firms.<sup>81</sup> If minorities cannot break into networks to establish initial relationships, the problem of network exclusion and resulting contracting disparities continues. Prime contractors reported that they tend to utilize subcontractors that they know and trust. In addition to issues with potential subcontracting, MBEs face challenges in terms of network access among agency employees. One contractor noted that he operates at a disadvantage because of the actions of agency officials:

*The majority firms get the opportunity to go into state agencies, sit down, and they talk about ideas and theories. They also can come up with solutions. By the time the bid's put out there, they've already got something they've developed with management that will match so they're going to be the successful winner.*<sup>82</sup>

The lack of information on informal networks also acts as a barrier to MBEs, leading to observed contracting disparities. Almost every disparity study that covered network access provided anecdotal accounts summarizing issues with MBEs gaining access to information on these networks, and notably, how to access the "inside information" exchanged as part of the network. Per one study:

*The added disadvantage of being African American or Hispanic, or one of those, is that you are not necessarily plugged into a network of information. Information is power and you don't have access to some of the information. Whereas, a friend of yours working in public works could call you up, if you were his fraternity brother or a member of his club, or whatever, and say, 'Hey, look out for business coming down the pike.' That's what we fundamentally don't have access to... that inside information. We don't have the networks that many other people in the majority culture have. And that is the fundamental difference.*<sup>83</sup>

## PROCESS-BASED BARRIERS

A number of barriers that lead to observed disparities reside with agency and prime contractor management of the bids and bid process when MBEs seek to work as either a prime or subcontractor. These include bonding & insurance, large project sizes, and bid-specific issues (bid shopping, held bid, late bid notification).

---

<sup>81</sup> Availability and Disparity Study: California Department of Transportation. BBC Research & Consulting. June 29, 2007.

<sup>82</sup> A Historically Underutilized Business (HUB) Disparity Study of State Contracting. MGT of America. March 30, 2010, p. 7-14.

<sup>83</sup> Nevada Department of Transportation Disparity Study Final Report, Keen Independent Research, December 6, 2013, p. J-87.

## **Bonding & Insurance Requirements**

Most public contracting projects involving construction or large investments up-front require a contractor to be bonded, which protects the agency if the contractor fails to perform the job, fails to pay for necessary licenses and permits, fails to pay subcontractors, or fails to monitor a job site or contract resulting in employee theft, damage or destruction. As a result, a bidder on a contract requiring bonding needs to show proof that it has obtained the requisite level of bonding from a surety corporation. Similarly, many public contracts include requirements for contractors to carry certain types of insurance, typically liability insurance (general and professional) and workers compensation insurance. The liability insurance protects the public agency from contractor-caused damage (not covered by the bond), professional liability pertains to errors made and losses incurred in professional matters (e.g., finance or property valuation), and workers compensation insurance covers payment for lost wages and medical services for contractor employees.

Most MBEs indicated difficulty in obtaining bonding, which is a barrier to obtaining contracts and leads to contracting disparities. One reason is that minority-owned firms are typically smaller in terms of revenue and employees than non-minority firms,<sup>84</sup> which leads surety companies to avoid providing a high enough bond to meet a particular contract requirement. Another reason is that public contracting agencies set the bonding requirements at a level that is too high for most MBEs to meet, given the aforementioned size and scale. In this respect, when public agencies set the bonding requirement at a level above what might be the minimum necessary, it excludes a large number of MBEs that might be ready, willing, and able (i.e., available) to bid but cannot due to the bonding requirement.

The anecdotal summaries in disparity studies noted that bonding issues were not limited to MBEs. Many interviewees indicated that bonding requirements adversely affected all small businesses and their opportunities to bid on public contracts, and those barriers related to bonding are linked to capital access.<sup>85</sup> However, third party macroeconomic data on discrimination in credit markets, often included in disparity study analyses as part of the regression analyses sections, clearly indicate a relationship between bonding issues and discrimination. Anecdotal evidence supports the quantitative results. One trade association head stated:

*Lending institutions have discriminated against the small companies and the American Americans and what have you. They go in and give them their balance sheet and they*

<sup>84</sup> Survey of Business Owners. United States Census Bureau. 2012. SBO data confirm that average receipts and number of paid employees for minority-owned businesses are lower than those of firms owned by white males. For more information, please see <http://www.census.gov/programs-surveys/sbo.html>

<sup>85</sup> For example, see *2015 State of Indiana Disparity Study*. BBC Research & Consulting. March 2016. In another study, an MBE stated: "It's a combination of all factors. Being small with limited resources and being a minority because if it didn't matter, why would they ask you your ethnicity on the form?" *2014 San Diego Association of Governments Disparity Study*. BBC Research & Consulting. May 2, 2014.

*don't show a steady flow of cash and they don't have an asset base. So they don't get the bonding.”<sup>86</sup>*

Consistent disparities and statistically significant findings related to loan denials and credit access for MBEs versus non-MBEs complement these anecdotal insights.

Arguments also exist with respect to insurance requirements prohibiting MBEs from obtaining contracts, increasing contracting disparities. Many interviewees said that they could obtain insurance, but that the cost of obtaining it, especially for small businesses, was a barrier to sustaining their businesses or bidding certain projects. This perspective is not unique to MBEs, but consistent with discriminatory lending practices, the inability to obtain insurance can include the impact of discrimination.

### **Large Project Sizes**

An issue that is closely related to bonding and insurance involves large project sizes. Most disparity studies identified project size as an impediment to contracting for smaller businesses. The disparity studies indicated that owners of large firms did not necessarily feel that there was a problem with the current project sizes, but that small firms (including both MBEs and non-MBEs) almost always discussed project size as a barrier to contracting. One entrepreneur noted that “project specifications are designed in such a way that only large companies can provide supplies.”<sup>87</sup> As a result, the issue impacts small versus large, as opposed to strictly MBE versus non-MBE. Nevertheless, larger, bundled contracts typically preclude smaller firms from acting as a prime, as the smaller firms might not meet contract requirements such as bonding and insurance. As discussed in the previous section, discrimination in capital markets can further contribute to the inability of MBEs to get bonding and insurance. This results in MBE underrepresentation on bidding for large contracts and perpetuates existing contracting disparities.

### **Bid Specific Issues (Late Bid Notification, Held Bid, Bid Shopping)**

The anecdotal insights provided additional evidence that bid specific issues cause large contracting disparities. These include exclusionary or discriminatory practices that not only arise out of prejudicial treatment, but also are a response to race-based program requirements. This section focuses on the issues of late bid notification, bid shopping, and held bids.

Anecdotal accounts of late bid notification arose largely in the context of MBEs indicating that prime contractors requested bids from MBEs at the last minute, purportedly to satisfy good faith efforts in meeting race-based contracting program requirements. In these cases,

---

<sup>86</sup> 2014 San Diego Association of Governments Disparity Study. BBC Research & Consulting. May 2, 2014, p. 4-14.

<sup>87</sup> A Disparity Study for the City of Saint Paul and the Saint Paul Housing and Redevelopment Authority. MGT of America. August 4, 2008, p. 7-24.



late bid notification and inadequate lead time were due to a combination of discrimination and exclusionary networks. If a prime contractor sends out a late bid notification to an MBE, they fully expect not to receive a bid from that MBE, allowing them to use a non-MBE. Yet, the prime contractor can rationalize that it satisfied good faith efforts to include MBEs by telling procurement agencies that it sent out bid invitations to MBEs. While this scenario was presented throughout the set, one study summarized the situation as:

*Unscrupulous tactics by prime contractors seeking to avoid [Emerging Business Enterprise or EBE] program requirements were reported by many interviewees. Inadequate lead time to respond to prime contractors' bid requests was reported as a tactic prime contractors utilized to prevent EBE subcontractors from submitting timely bids. Some interviewees complained that prime contractors listed them on bid documents for their EBE certification status with no intent of working with them.<sup>88</sup>*

With respect to the relationship between late bid notification and exclusionary network issues, minority business owners expressed concern that they were the last to know about upcoming opportunities and did not find out about opportunities with sufficient time to prepare a thorough bid. This puts minority-owned firms at a distinct disadvantage, partially stemming from the depressed network access detailed at the start of this segment. Studies reviewed cited instances where social networks affected the availability of information and lead time, indicating a relationship between bid notification and also the barriers due to network access. Business owners who were currently working for an agency or who had personal relationships with agency staff often found out about opportunities ahead of time, increasing their ability to prepare and submit a bid. As discussed above, many minority business owners are not part of these networks and suffer as a result.

In other instances, anecdotal evidence indicated that late bid notification was not to the result of active discriminatory behavior, but a product of poor planning or bid process execution by agencies. Some agencies send out notices at the last minute, preventing all prospective bidders from having a chance to submit a competitive bid or proposal. These situations can arise due to miscommunication between agencies and primes, instead of discriminatory behavior. As a result, verifiable anecdotal accounts that detail late bid notification issues that affect all small businesses, particularly subcontractors, will provide deeper insight into whether race-neutral remedies are necessary at the outset to address agency issues.

Anecdotal experiences with bid shopping and held bids often exhibited a strong discriminatory pattern throughout the set of disparity studies. A held bid occurs when a prime contractor solicits information from a subcontractor and includes them on a prime bid. When the prime contractor wins the bid, however, they do not engage the original subcontractor and instead work with another firm. Minority business owners identified this barrier often in the anecdotal

---

<sup>88</sup> City of Milwaukee, *Study to Determine the Effectiveness of the City's Emerging Business Enterprise Program*, Mason Tillman Associates, August 2007, p. 7-29.

summaries, noting that they were included to reach minority goals, but never contracted or received any work as a result. The contracting agency never followed up to ensure that the bid was fulfilled as submitted in terms of subcontractors. In addition, no repercussions were noted for the prime that switched subcontractors despite meeting goals with a minority contractor. Local governments and contracting agencies must improve monitoring of subcontracting activity.

Held bids and not using MBEs after submitting a bid is a pervasive and damaging issue. For example, in a survey for a disparity study for the City of Columbia, 40 percent of subcontractors reported being dropped from a City project after the award of the contract to the prime contractor. Of all M/WBEs surveyed, 34 percent mentioned this issue as a significant impediment to their business success.<sup>89</sup> It is an issue rooted in discrimination. As an illustrative example of the phenomenon observed throughout the set, in one study, an interviewee was explicit about the discrimination inherent in held bids and not receiving work after being on the bid:

*I had an incident where I was sent a good faith – I mean, a request for good faith effort. I sent them my request. And then that particular contractor, GC, received the job, but when I called him, he said, "I just sent you that for a request for bid because I have to because of the good faith effort, but I will never use a minority firm for the service that I do."<sup>90</sup>*

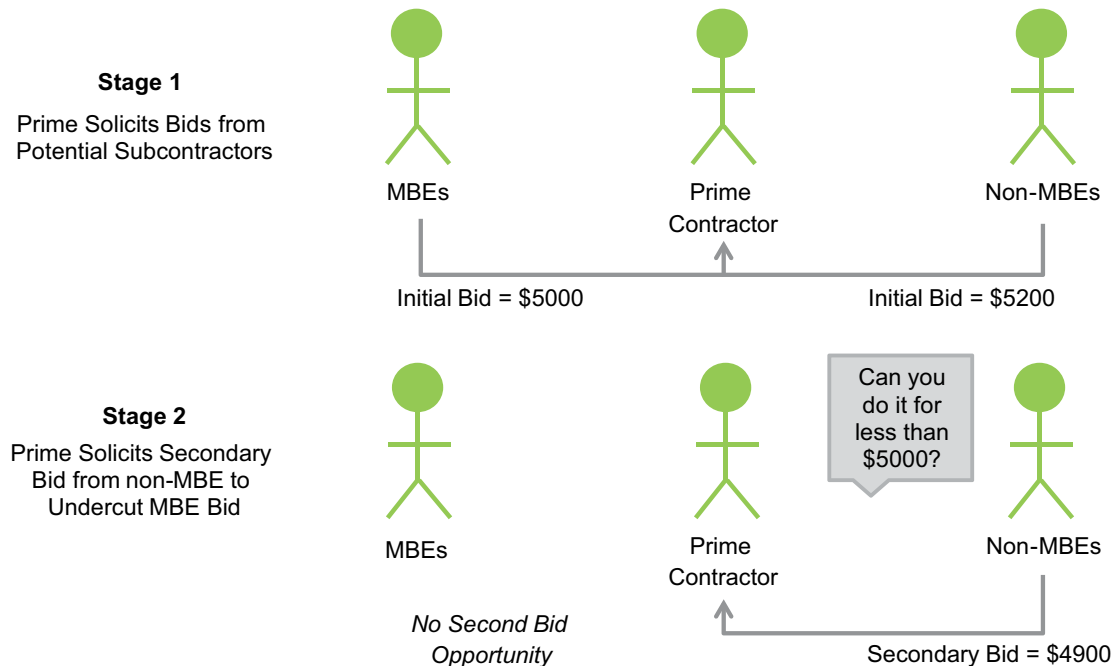
Bid shopping is another activity that was frequently reported in the bid process, but can be difficult to prove as resulting from discrimination. Figure 5-4 presents a hypothetical example of this practice, where a prime contractor might share a bid with other potential bidders to see if they can get a lower price. Bid shopping arising out of discrimination (i.e., the desire to not use an MBE because of race or ethnicity) was frequently cited in the anecdotal accounts from the disparity studies.

---

<sup>89</sup> A Historically Underutilized Business (HUB) Disparity Study for the City of Columbia. MGT of America. August 15, 2006, p. 6-10.

<sup>90</sup> Race, Sex, and Business Enterprise: Evidence from the City of Austin. NERA Economic Consulting. May 15, 2008, p. 243.

FIGURE 5-4  
EXAMPLE OF BID SHOPPING



In Figure 5-4, the prime requests a bid from an MBE. The MBE provides a bid of \$5,000. Yet, the prime does not want to work with the MBE and instead, shares the MBE bid information with his non-MBE friends. The prime provides the bid information to see if he or she can get a non-MBE to bid under the MBE bid. In this hypothetical, one of the non-MBEs, armed with the MBE bid information, is able to undercut the MBE bid and successfully win the project. This insider track of information and “behind closed doors” bid shopping harms minority entrepreneurs and is an unfair and unethical practice.

When asked about bid shopping, one disparity study included an anecdotal account from a Hispanic American female owner of an MBE- and WBE-certified specialty contracting firm, who responded that the practice was continual. She explained that she has twice had a prime contractor swap around the subcontractors after hearing that competitors had seen her offers. She noted that this practice is discouraging because of the time involved to prepare bid responses.<sup>91</sup> Despite the reported prevalence of bid shopping, it is difficult for affected contractors to prove that it occurs due to discriminatory behavior related to race and ethnicity. One Hispanic American owner of a construction firm noted that some prime contractors engage in bid shopping to avoid meeting M/WBE requirements.<sup>92</sup> This sentiment was echoed

<sup>91</sup> 2015 State of Indiana Disparity Study. BBC Research & Consulting. March 2016, p. E-113.

<sup>92</sup> Alameda County Availability Study. Mason Tillman Associates. October 2004, p. 9-25.

throughout the set when examining the survey, focus groups, and other data collection results. The difficulty in proving such actions presents a challenge in finding remedies for bid shopping. This difficulty reinforces the need to draw from verified experiences that help provide context to instances where bid issues arise as a means to avoid working with a particular business due to race or ethnicity.

## DISCRIMINATORY ATTITUDES AND PERCEPTIONS

Almost every disparity study contained anecdotal accounts detailing explicit instances of discrimination in public contracting. These insights took the form of outright prejudice and incorporation of capability stereotypes and the use of double or higher standards in assessing MBEs for contracting opportunities. In other instances, outright discriminatory behavior was tied to previously discussed barriers, such as shopping bids or excluding access explicitly due to the desire not to work with a firm whose ownership was a particular race or ethnicity. As a result, many of the barriers discussed in this section interact with or contribute to other barriers and were mentioned throughout the anecdotal analyses and data in the disparity study set analyzed. One issue that requires attention in assessing anecdotal accounts is whether the contracting outcome arises from a perception of discrimination, as opposed to actual discriminatory behavior. A single selected anecdote might reflect the opinion or perception of a business owner, when in fact the loss of a bid or contract might be due to factors unrelated to discrimination. However, the selected anecdotes included in this section are drawn from disparity studies that implement the processes described previously to increase the verifiability and reliability of the anecdotal evidence, collected not only from interviews but also surveys, focus groups and/or public hearings. As a result, the anecdotes reflect a broader range of experiences from business owners and other stakeholders that interact with the contracting agencies.

### ***Discriminatory Attitude and Racism***

Instances of outright discrimination permeated the anecdotal summaries of the disparity studies reviewed in this research. The disparity studies captured countless accounts of disparate treatment and overt racism experienced by MBEs and DBEs. Across geographies and industries, the anecdotes provided by minority entrepreneurs corroborated one another and centered around the issue of lack of respect and discrimination based on race or gender. In some instances, the discriminatory behavior is overt but in others, minority entrepreneurs picked up on more nuanced acts of discrimination. One example is embodied by the following anecdotal account:

*"I have been called 'beaniard,' 'wetback,' and a 'spic,' I had two guys sit to the right of me, where one was making arguments to let the other one use a very expensive piece of equipment on a high-rise building for free. But, that same guy was charging us a very large amount of money per hour to have access to the same equipment. And when they made the agreement, the one guy told the other guy, 'That's very white of*

*you. I appreciate it.' And the other guy told him, 'Don't mention it.' This was a project that had an [Emerging Business Enterprise] requirement."*<sup>93</sup>

Derogatory insults and preferential treatment for non-MBE firms due to outright discrimination extended to all ethnic, racial, and gender groups. In one disparity study, interviewees reported instances of racial slurs, sexist comments and sexual harassment, race-related graffiti on work sites, and other incidents affecting women and minorities throughout the data collection mechanisms employed.<sup>94</sup> The disparity studies also included a number of different instances where racism occurred based on prejudice, yet MBEs did not report them due to fears of retaliation. This presents a significant policy challenge in terms of rectifying the issue. As expressed in one study:

*A representative of a Hispanic American owned construction firm inquired from a winning prime why his firm was not selected to subcontract on a job. The prime's representative asked the firm's representative what the owner's surname was. When the surname was given, the prime responded, 'that's the reason.' No action was taken by the potential subcontractor due to concern over retaliation."*<sup>95</sup>

Although not every instance of racism or discrimination was overt, business owners said that they could "feel it."<sup>96</sup> In other cases, there was little doubt about intent. As an example of the experiences reported in the set, one participant was told by City staff that he was "a black boy with an attitude."<sup>97</sup>

### **Capability Stereotypes**

In numerous disparity studies, survey responses, focus groups, and interviews reported that some agency staff and prime contractors consider minority-owned firms to be less qualified than majority-owned firms. This issue was pervasive throughout the set analyzed and is typified by several accounts. In one study, an African American male owner of an architectural firm for twenty years explained why he does not want to be labeled as a minority architect:

*"I don't [like] to be called a minority architect. The word 'minority' implies inferiority in the minds of many of the people who are making the decisions. Not that it is [true], but that is what they think. So I want to be known as an architect. I don't want to be listed as a minority architect [because that is not a] benefit for me. As a matter of fact,*

<sup>93</sup> City of Milwaukee Study to Determine the Effectiveness of the City's Emerging Business Enterprise Program. Mason Tillman Associates. August 2007, p. 7-4.

<sup>94</sup> Availability and Disparity Study: California Department of Transportation. BBC Research & Consulting. August 31, 2012, p. 3-4.

<sup>95</sup> Availability Analysis and Disparity Analysis for the Arizona Department of Transportation. MGT of America. March 16, 2009, p. 8-46.

<sup>96</sup> Disparity Study for Denver Public Schools. MGT of America. October 17, 2014.

<sup>97</sup> Mecklenburg County Disparity Study Final Report, MGT of America, January 22, 2004, p. 6-37.

*it's a strike against me to say I'm a minority architect. The playing field, in terms of how the selection process is made, is not level. In spite of what is heard, it's not a level playing field."*<sup>98</sup>

In a disparity study of the Commonwealth of Virginia, 65 percent of M/WBE respondents agreed with the statement that "M/WBEs are viewed as less competent than nonminority firms." When examining the control group of nonminority male owned firms, only 17 percent agreed with the same statement. This characterizes a persistent informational and experiential asymmetry on the part of the affected population, MBEs, and the non-affected population when it comes to stereotypes and their damaging effects on business performance. In each case, the offender is *a priori* judging a particular firm not on capability or performance, but stereotyping performance based on perceptions about race or ethnicity.

### **Double or Higher Standards**

Double or higher standards pertain to the additional requirements imposed on minority-owned firms in public contracting that are not imposed on non-MBEs. The studies reviewed contained anecdotal data to support the presence of double or higher standards for MBEs. The data collection was supported by multiple anecdotal accounts detailing MBEs encountering increased scrutiny regarding their work product as well as increased administrative requirements or "hoops to jump through" once hired. As noted by one anecdotal account:

*There is a hidden expectation amongst any African American or minority company that we better do the job and do it better than anybody else if you want to maintain that contract or do businesses again in the future.*<sup>99</sup>

All contractors should be subjected to the same standards and expectations while working as a prime contractor or as a subcontractor on public projects. However, the anecdotal analyses indicated that many minority business owners believed that their work was systematically held to a higher standard than their Caucasian male counterparts.<sup>100</sup> The higher standards barrier is a systemic issue for minority entrepreneurs. Often, higher standards cause undue economic hardships for minority entrepreneurs.<sup>101</sup> One business owner who previously worked for a Caucasian-male-owned firm stated that he sees striking differences in his treatment since starting his own business.<sup>102</sup> A minority male owner of a construction company reported that certain City managers hold his work to a higher standard than his colleagues, noting:

<sup>98</sup> City of New York Disparity Study, Mason Tillman Associates, January 2005, p. 9-7.

<sup>99</sup> City of Cincinnati Disparity Study, Mason Tillman Associates, July 2015, p. 10-6.

<sup>100</sup> For an example, please see *San Francisco Bay Area Rapid Transit District Availability and Utilization Study*, Mason Tillman Associates, April 2009.

<sup>101</sup> For an example, please see *City of Milwaukee Study to Determine the Effectiveness of the City's Emerging Business Enterprise Program*, Mason Tillman Associates, August 2007.

<sup>102</sup> *Disparity Study for Denver Public Schools*, MGT of America, October 17, 2014.

*Some City managers will require me as a minority-owned business to do work that was not requested of others doing similar work. I did demolition work for the City. The side was supposed to be seeded and the ground should be very smooth which is how I complete by jobs. I have seen other jobs where the work was not nearly as professional as mine but they did not have to redo it.*<sup>103</sup>

Disparity studies also noted that some minority and female business owners report double standards for performance of work that had a negative impact on contracting experiences. Many attributed the double standards directly to race and gender discrimination. Some owners and managers of MBEs and DBEs report that double standards for work adversely affected their companies and decreased competitiveness:

*When asked if she had experienced any double-standards for minority- or women-owned firms, the Asian Pacific female owner of a SBA- and DBE-certified environmental company said, "Yes, of course. You can feel it. More [so] being a minority than being a woman."*<sup>104</sup>

The existence of double and higher standards impacts the observed disparity ratios. First, the presence of these standards influences agency and prime selection of minority contractors, such that if the bids do not meet the inflated expectations, the MBE will not be selected. Second, the perception of these standards acts as a deterrent to MBEs that might otherwise bid on public contracts. In other words, if an MBE already assumes that the deck is stacked against them, what incentive is there to actually bid on these contracts? Theoretically, this influences the availability of firms, if one determines that a particular MBE is not "ready and willing," given it has no intention of bidding on a contract.

### **DBE Stigma**

Although not as pervasive as the overt discrimination discussed above, disparity studies contained anecdotes and systematically-collected anecdotal data detailing stigma associated with certification as a disadvantaged business enterprise (DBE). Firms reported that the mere mention of DBE certification or that the business is owned by a minority was a turnoff when attempting to do subcontracting work for prime contractors on public contracts. Minority-owned firms reported that primes did not want to hear about MBE or DBE status<sup>105</sup> and minority-owned businesses took note and began excluding that information from their business cards and when searching for new business because it is "a slap against us."<sup>106</sup> As stated in one report:

<sup>103</sup> City of Cincinnati Disparity Study. Mason Tillman Associates. July 2015, p. 10-6.

<sup>104</sup> Nevada Department of Transportation Disparity Study Final Report, Keen Independent Research, December 6, 2013, p. J-82.

<sup>105</sup> The State of Minority- and Women-owned Business Enterprise: Evidence from Cleveland. NERA Economic Consulting. December 24, 2012.

<sup>106</sup> The State of Minority- and Women-owned Business Enterprise: Evidence from Missouri. NERA Economic Consulting. June 28, 2012, p. 245.



*The African American diversity marketing manager of an MBE/SBE/DBE-certified environmental consulting company stated that the disadvantages of certification are that "the rest of the firms that are not certified view your company differently, in a more negative light due to the lack of education around what a DBE certification entails. The view in the marketplace is that companies with that certification have poor qualifications and are not qualified."*<sup>107</sup>

## **BARRIERS AFFECTING FIRM FINANCIAL PERFORMANCE AND ABILITY TO COMPETE**

As noted in Chapter 3, most studies include a section dedicated to analysis of publicly-available data with respect to evidence of discrimination related to access to capital. Indeed, most disparity studies provided data and results showing that MBEs faced discriminatory lending practices with respect to gaining and obtaining credit. In this review of disparity studies, distinct anecdotal accounts with respect to access to capital and receipt of timely payment directly support the statistical evidence pertaining to discrimination, barriers to public contracting, and contracting disparities.

### **Access to Capital**

Substantial research demonstrates discriminatory practices in lending, depressed access to capital and credit, and lower net worth among minority business owners.<sup>108</sup> Financial institutions restrict the amount of debt capital available to MBEs, engage in redlining of minority areas, and discriminate in mortgage application approvals. Suppliers offer difficult credit terms and higher prices to MBEs, and unions restrict the number of training and job slots available to minority and women workers,<sup>109</sup> further compounding the problem. Anecdotal data and individual illustrative accounts drawn from the disparity studies highlighted the perception of discrimination, but predominantly focused on size issues that affect access to capital for all small businesses, independent of race or ethnicity. As stated in one report:

*An African American male-owned DBE/MBE/SBE-certified masonry subcontractor, stated that he has had difficulties obtaining financing. This is a part of the reason why he is a disadvantaged business. He has had personal issues in the past that has affected his ability to receive financing on projects. It does not make sense to him when he is trying to make payroll and payments to rent equipment and has an outstanding history of making those payments as it relates to his business, but when it comes to obtaining financing for his work related projects, he has difficulty obtaining financing*

<sup>107</sup> California Department of Transportation, Availability and Disparity Study, BBC Research and Consulting, August 31, 2012, p. J-6.

<sup>108</sup> For a discussion of general access to capital issues, please see *Analysis of Essex County Procurement and Contracting: Final Report* prepared by the University of Minnesota Disparity Study Research Team, 2005.

<sup>109</sup> MWBE Local Business Disparity Study for the City of Evanston. D.J. Miller & Associates. April 1996.



*because of issues in his personal life. He stated that with respect to obtaining bonding, on a \$1 million bond, 2.5 percent is required. He said that if he had that kind of cash available, he would not qualify for disadvantaged status. He feels that this is another way that small businesses are disqualified for projects.*<sup>110</sup>

As another example of access to capital issues, interviewees in a 2007 California Department of Transportation study reported that financing was difficult for smaller companies with fewer assets and new companies with less history, although not necessarily due to race.<sup>111</sup> Small business owners indicated that access to financing was a barrier in general and more specifically at startup and the initial growth phases. In a study of Cleveland, Ohio, a sizeable number of entrepreneurs used personal resources to finance their businesses, including second mortgages and credit cards.<sup>112</sup>

### **Receiving Timely Payment**

In almost every disparity study analyzed, receiving timely payment was raised as a barrier to successful contracting. Time and time again, study authors noted that “the worst problem overall for MBEs was receiving timely payment for work performed.”<sup>113</sup> This issue was noted repeatedly at both the prime and subcontractor levels and is pervasive, hitting at access to capital as well as issues related to MBEs remaining as going concerns given potential liquidity issues that arise out of lack of timely payment. As an example, California Department of Transportation (Caltrans) contractors who were interviewed went so far as to say that they would prefer not to work for Caltrans because the agency is so slow to make payments.<sup>114</sup>

Late payments by prime contractors and government agencies are problematic for small business owners who are struggling to maintain solvency, pay creditors, and meet payroll. Some interviewees, including MBEs, WBEs, and majority-owned firms, reported that lack of timely payment on contracts and subcontracts led to an increased need for loans, business capital, and financing.<sup>115</sup> For example, two-thirds of the written complaints that the Georgia Department of Transportation received within a particular study period included assertions by DBE subcontractors that the prime contractor had improperly delayed or withheld payment to the subcontractor.<sup>116</sup>

<sup>110</sup> *Metro Disparity Study Final Report, Los Angeles County Metropolitan Transportation Authority, BBC Research and Consulting, January 22, 2010, p. B-178.*

<sup>111</sup> *Availability and Disparity Study: California Department of Transportation. BBC Research & Consulting. June 29, 2007.*

<sup>112</sup> *The State of Minority- and Women-owned Business Enterprise: Evidence from Cleveland. NERA Economic Consulting. December 24, 2012.*

<sup>113</sup> *Race, Sex, and Business Enterprise: Evidence from Augusta, Georgia. NERA Economic Consulting. September 4, 2009, p. 252.*

<sup>114</sup> *Availability and Disparity Study: California Department of Transportation. BBC Research & Consulting. June 29, 2007.*

<sup>115</sup> *The State of Minority- and Women-owned Business Enterprise: Evidence from Cleveland. NERA Economic Consulting. December 24, 2012.*

<sup>116</sup> *2012 Georgia Department of Transportation Disparity Study. BBC Research & Consulting. June 15, 2012.*

## CHAPTER 6:

# Research Findings

The objective of this report is to provide insight into how the qualitative data and evidence included in disparity studies identifies contracting barriers and discriminatory behavior which lead to the observed contracting disparities for MBEs. The report analyzes the impetus for disparity studies, including the components and methodologies of sound disparity studies. As part of the analysis, the report summarizes existing disparity ratios contained in a select set of disparity studies. Lastly, the report includes an analysis of additional quantitative and qualitative evidence that facilitates an investigation into what causes disparities such that the findings can advance the dialogue into finding effective policy solutions to remediate contracting disparities for MBEs.

A review of 100 disparity studies, reports, and summaries indicated significant contracting disparities for minority business enterprises (MBEs), pervasive across different ethnic and racial groups, industries, and geographies. The disparity results were substantial, with over 78 percent of disparity ratio observations falling below a 0.8 or 80 percent threshold used to classify a “substantial” disparity. In many cases, these disparity ratios were statistically significant at high levels, such that disparity study consultants could reject chance as a prime driver of contracting disparities. However, the presence of significant disparities observed from numerical disparity ratios does not imply discrimination. Instead, disparity studies rely on a wealth of additional information to characterize inferences of discrimination and the need for race-based contracting programs implied by substantial and significant disparities.

Anecdotal data collection and analysis is an essential disparity study component in terms of understanding what discriminatory behaviors are most pervasive. The anecdotal evidence captured in each disparity study reviewed as part of the research design provided the foundation for evaluating contracting barriers, how these barriers arise, and in what context they arise (e.g., discriminatory or non-discriminatory). Key barriers identified in the qualitative data analysis include:

- Barriers arising largely from discriminatory behavior: Agency and prime contractors employing capability stereotypes, double or higher standards, and manipulating bid processes based on prejudicial factors unrelated to business performance; also systemic discrimination against MBEs related to key market-based issues including access to capital.

- Barriers arising largely from non-discriminatory behavior: Actions that influence all businesses regardless of race or ethnicity, including large project sizes, bid qualifications, and timely payment.
- Barriers related to network access: Exclusion of MBEs from formal or informal networks that would facilitate greater access to public contracting opportunities, although these represent a gray area between discriminatory and non-discriminatory behavior.

With respect to the last bullet, there is a fine line between claims of discrimination and a general lack of access. MBEs often cited network exclusion as a barrier, but often the reasons why were split between claims of discrimination versus understanding that most businesses prefer to work with firms they know and trust, regardless of race or ethnicity.

The review of existing disparity studies yielded several common themes and insights beyond the characterization of contracting barriers and evidence of discrimination. These included:

- The “needle has not moved” with respect to overcoming disparities. Every study identified contracting disparities and many supported these findings with additional quantitative and anecdotal evidence that emphasized the need for both race-neutral and race-conscious remedial efforts. Yet over time, disparities were prevalent even within the same jurisdiction.<sup>117</sup>
- Disparity studies often reported the same race-neutral remedies (e.g., unbundling large contracts, improving payment processes, improving data collection) and race-conscious remedies (e.g., improved goal setting and monitoring) to address contracting disparities, yet the studies fail to detail the extent to which agencies have actually implemented and measured the success or failure of these recommendations.
- Race-conscious programs typically helped MBEs when enacted; however the legal history has illustrated that these programs need to comply with the strict scrutiny standard and be narrowly tailored.

In addition to common observations, the disparity studies and anecdotal evidence highlighted common problems and issues with contracting disparities experienced by MBEs. These include:

- Enforcement and accountability of race-conscious programs by contracting agencies. There is a perception among some MBEs that prime contractors do not engage in good

<sup>117</sup> For example, the Washington Suburban Sanitary Commission commissioned disparity studies in 1999, 2005, 2010 and 2015. Although the 2015 study has yet to be published, the first three studies indicated that substantial disparities continued to exist for many racial and ethnic groups. While the 2005 study noted improvement over the 1999 study, the disparity consultants, which were different for each of the first three studies, often recommended similar approaches to addressing disparities. Likewise, disparity studies conducted in 2007 and 2012 for the California Department of Transportation (Caltrans) both contained substantial statistically significant disparities for specific racial and ethnic groups. As a result, Caltrans still failed to meet DBE goals. What remains unclear and a major policy issue is to what extent Caltrans implemented recommendations provided in the 2007 disparity study that might provide insight into why continued disparity observations existed in 2012.

faith efforts to comply with race-conscious programs and agencies do not monitor or enforce these efforts.<sup>118</sup>

- Resource constraints are a major issue facing contracting agencies. Many suggestions for program improvements, both race-neutral and race-conscious, require a substantial monetary investment (both human capital and infrastructure) at the public agency level. Based on the political and economic environment, some of these recommendations are prohibitive given lack of resources.
- There is often insufficient analysis and evidence of subcontracting activity at the agency level. Given that subcontracting is an important and critical component of increasing MBE participation in public contracting, greater oversight and accountability of subcontracting behavior coupled with better and more reliable data collection should be a priority.

These three bullet points also raise an important question for future research. Do disparity studies and conclusions provide insight into how governments are doing with respect to rectifying disparities? A logical next step in the research process is to investigate what is (and is not) being done to help address the causal factors of contracting disparities, including the role or influence of discrimination against MBEs.

## THERE IS A NEED FOR INNOVATIVE POLICIES

The disparity study review indicated that both discriminatory and non-discriminatory actions lead to contracting disparities for MBEs. Additional research is needed to understand what steps public agencies have taken to address these disparities. Specifically, whether agencies have been effective at implementing the common policy prescriptions that most disparity studies include and to what extent these policies have either succeeded or failed. Beyond this, there are a number of areas to explore and research with respect to lessening barriers faced by MBEs in public contracting. Suggestions include, but are not limited to:

- Developing a uniform approach to determining the capacity of firms. A holistic definition could consider key individuals, equipment, financing, technology, and the availability to compete, among other factors. This can alleviate disagreements of which firms are available in a particular geographic and product market.
- An analysis of how often disputes are brought against municipalities/agencies could be a useful tool to help agencies and policymakers evaluate the current state of public contracting for minorities. Key issues include what is the cost of these actions and who pays? What level of resources is being dedicated to defend the program that could be used to improve the program?

---

<sup>118</sup> Numerous disparity studies included anecdotal accounts which touted the belief that without a race-conscious program in place, prime contractors would never use an MBE.

- Research into the real ramifications for a firm that engages in discriminatory behavior and is caught. How do different municipalities and agencies deal with this scenario? A large-scale survey and interview effort could offer clarity and assist in developing policies that will deter firms from engaging in discriminatory behavior by dis-incentivizing it.
- To reduce informational asymmetries resulting from established and often exclusive networks, governments can create a centralized bidding notification hub for all city/related agencies where bid posting is mandatory. This will ensure equal access to information as well as timely and equal notification.
- The Federal Government should be a model for state and local governments in addressing and understanding the public contracting process. To what extent can new technology or innovative tools be used to educate and inform government contracting officers with respect to barriers faced by MBEs? Would these tools be transferable to local contracting agencies? Can tools be developed at a federal level to help standardize and assist all agencies in the collection and management of procurement data at the prime and subcontractor level? Organizations like the MBDA can push for ways to standardize data collection procedures and elements. This will be a long process but one that will ultimately result in greater information and better-informed policies to affect change.
- Little work exists to understand the economic impact of discrimination in public contracting for MBEs. A study that demonstrates the value of these firms to the agencies and communities in which they work is necessary to drive home the business case for affirmative-action programs that remedy existing contracting disparities.
- Agencies such as the MBDA could host and sponsor working groups of leading disparity study professionals to discuss and contrast the merits and difficulties of current disparity study methodologies, particularly with respect to the issue of defining both "availability" and "ready, willing, and able" firms.
- Agencies can generate disparity study fact sheets and distribute them to buyers and office staff. This allows staff to see exactly what issues the disparity study identified with respect to discrimination and should advance the discussion towards finding solutions. An ongoing education process could focus on understanding specific problems and using teamwork to solve them. It could also encourage buy-in across the organization by starting with a thorough understanding of the problem.
- Certifying organizations could offer different levels of certifications and certify, for example, that a firm can do a specific type of work at a specific dollar amount. This would reduce the risk to municipalities and states, and would remove the rationale for disparities that capacity is the main issue.
- Contractors who did not win a bid require objective and accurate feedback to improve in subsequent bidding opportunities. Although not cited as a major barrier, multiple minority business owners reported that they lack feedback on failed proposals. Because most proposals contain evaluation criteria in the performance work statement, government agencies should provide the information on firm and proposal ratings to

contractors who did not win in an effort to correct their mistakes in their next proposal to increase their chances of winning.

- States and municipalities should evaluate the feasibility and implementation of completely anonymous incident reporting systems. Staff members involved in issues should be apprised of the situation and if found that they contributed to the problem, should face monitored corrective action or other sanctions.
- A study that examines the economic impact of discrimination in public contracting could help quantify lost revenue and the impact on communities. This study could help organizations like the MBDA and the Department of Justice (DOJ) to create a centralized data system going forward where state and municipality data flows in, collecting anecdotal information, incident reports, payment speed, etc. The data would be publicly available and would permit the MBDA and the DOJ to proactively develop and run well-informed initiatives to alleviate discriminatory behavior that causes disparities in public contracting.



## APPENDIX A

## List of Disparity Studies (Chronological)

- "2015-16 State of Indiana Disparity Study", BBC Research & Consulting, 3/2016. (Indiana)  
[https://www.in.gov/idoa/mwbe/files/Final\\_Disparity\\_Study\\_Report\\_IDOA.pdf](https://www.in.gov/idoa/mwbe/files/Final_Disparity_Study_Report_IDOA.pdf)
- "Disadvantaged Business Enterprise Availability, Utilization, and Disparity Study for the San Francisco Municipal Transportation Agency (SFMTA)", Rosales Business Partners LLC, 11/2015. (San Francisco, California)  
<https://www.sfmta.com/sites/default/files/agendaitems/2016/4-19-16%20Item%2014%20Disparity%20Study%20-%20report.pdf>
- "Minority- and Women-owned Business Enterprise (M/WBE) Program Disparity Study", MGT of America, 10/2015. (San Antonio, Texas)  
[http://www.saws.org/business\\_center/SMWB/study/docs/SAWS\\_MWBE\\_Disparity\\_Study\\_20150104.pdf](http://www.saws.org/business_center/SMWB/study/docs/SAWS_MWBE_Disparity_Study_20150104.pdf)
- "Minority- and Women-owned Business Enterprise (M/WBE) Program Disparity Study", MGT of America, 10/2015. (San Antonio, Texas)  
[http://www.saws.org/business\\_center/SMWB/study/docs/SAWS\\_MWBE\\_Disparity\\_Study\\_20150104.pdf](http://www.saws.org/business_center/SMWB/study/docs/SAWS_MWBE_Disparity_Study_20150104.pdf)
- "Minority- and Women-owned Business Enterprise (M/WBE) Program Disparity Study", MGT of America, 10/2015. (San Antonio, Texas)  
[http://www.saws.org/business\\_center/SMWB/study/docs/SAWS\\_MWBE\\_Disparity\\_Study\\_20150104.pdf](http://www.saws.org/business_center/SMWB/study/docs/SAWS_MWBE_Disparity_Study_20150104.pdf)
- "Broward County Public Schools Disparity Study", Mason Tillman Associates, 10/2015. (Broward County, Florida)  
[http://www.broward.k12.fl.us/supply/sdop/docs/disparity/SBBC%20Disparity%20Study%20Final%20Report%2010-4-15%20\(Posted%2003.2016\).pdf](http://www.broward.k12.fl.us/supply/sdop/docs/disparity/SBBC%20Disparity%20Study%20Final%20Report%2010-4-15%20(Posted%2003.2016).pdf)
- "City of Atlanta 2015 Disparity Study Report", Keen Independent Research, 10/2015. (Atlanta, Georgia)  
<http://citycouncil.atlantaga.gov/15-O-1556-Full-Keen-Independent-2015-City-of-Atlanta-Disparity-Study.pdf>
- "City of Atlanta 2015 Disparity Study Report", Keen Independent Research, 10/2015. (Atlanta, Georgia)  
<http://citycouncil.atlantaga.gov/15-O-1556-Full-Keen-Independent-2015-City-of-Atlanta-Disparity-Study.pdf>
- "City of Philadelphia Fiscal Year 2014 Annual Disparity Study", Econsult Corporation, 8/2015. (Philadelphia, Pennsylvania)  
<http://www.phila.gov/commerce/Documents/Fiscal%20Year%202014%20Annual%20Disparity%20Study.pdf>
- "City of Cincinnati Disparity Study", Mason Tillman Associates, 7/2015. (Cincinnati, Ohio)  
<https://www.cincinnati-oh.gov/manager/assets/File/City%20of%20Cincinnati%20Disparity%20Study%20Final%20Report%209-27-2015.pdf>
- "Arizona Department of Transportation Disparity Study Report", Keen Independent Research, 7/2015. (Arizona)  
<https://www.azdot.gov/docs/default-source/beco-library/2015-adot-disparity-study-report-may-2015.pdf?sfvrsn=4>
- "City of St. Louis Disparity Study", Mason Tillman Associates, 4/2015. (St. Louis, Missouri)  
<https://www.stlouis-mo.gov/government/departments/sldc/upload/City-of-St-Louis-Disparity-Study-Final-5-11-15.pdf>
- "Durham County/City of Durham, North Carolina Multi-Jurisdictional Disparity Study", Griffin & Strong, P.C., 1/2015. (Durham, North Carolina) <https://durhamnc.gov/DocumentCenter/View/2648>



- "Disparity Study for Denver Public Schools", MGT of America, 10/2014. (Denver, Colorado)  
<http://businessdiversity.dpsk12.org/wp-content/uploads/2014/10/DPS-Disparity-Study-Draft-Report-10.17.2014.pdf>
- "State of Missouri Office of Administration Disparity Study", Colette Holt & Associates, 10/2014. (Missouri)  
<https://oa.mo.gov/sites/default/files/2014MOOADisparityStudyFinal.pdf>
- "North Carolina Department of Transportation Disparity Study, 2014", Colette Holt & Associates, 7/2014. (North Carolina) <https://www.ncdot.gov/download/about/regulations/ncdotdisparitystudy2014.pdf>
- "City of Philadelphia Fiscal Year 2013 Annual Disparity Study", Econsult Corporation, 6/2014. (Philadelphia, Pennsylvania)  
<http://www.phila.gov/commerce/Documents/City%20of%20Philadelphia-FY13%20Annual%20Disparity%20Study.pdf>
- "Connecticut Disparity Study: Phase 2", The Connecticut Academy of Science and Engineering, 5/2014. (Connecticut) [http://www.ctcase.org/summaries/disparity\\_phase2\\_sum.pdf](http://www.ctcase.org/summaries/disparity_phase2_sum.pdf)
- "2014 San Diego Association of Governments Disparity Study", BBC Research & Consulting, 5/2014. (San Diego, California) [http://www.bbcresearch.com/images/SANDAG\\_Final\\_Disparity\\_Study\\_Report\\_web.pdf](http://www.bbcresearch.com/images/SANDAG_Final_Disparity_Study_Report_web.pdf)
- "City of Mobile Disparity Study 2010-2012", Speeches ETC., 2/2014. (Mobile, Alabama)  
[https://www.cityofmobile.org/announcement\\_files/dsfinal\\_report.pdf](https://www.cityofmobile.org/announcement_files/dsfinal_report.pdf)
- "Nevada Department of Transportation Disparity Study Final Report", Keen Independent Research, 12/2013. (Nevada) [https://nevadadot.com/uploadedFiles/NDOT/About\\_NDOT/NDOT\\_Divisions/Administration/Contract\\_Compliance/Disparity%20Study%20Final%20Report%20Dec%202013.pdf](https://nevadadot.com/uploadedFiles/NDOT/About_NDOT/NDOT_Divisions/Administration/Contract_Compliance/Disparity%20Study%20Final%20Report%20Dec%202013.pdf)
- "Connecticut Disparity Study: Phase 1", The Connecticut Academy of Science and Engineering, 8/2013. (Connecticut) <http://www.ctcase.org/reports/disparity/disparity.pdf>
- "Jacksonville Multi-Jurisdictional Disparity Study Volume 1", Mason Tillman Associates, 8/2013. (Jacksonville, Florida) <http://www.coj.net/departments/jedc/docs/equal-business-opportunity/contract-compliance/final-city-of-jacksonville-disparity-study-report.aspx>
- "Disadvantaged Business Enterprise Disparity Study: Volume 1", NERA Economic Consulting, 7/2013. (Maryland) [http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources\\_Information/DBEDisparityStudy%202013%20Vol1.pdf](http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources_Information/DBEDisparityStudy%202013%20Vol1.pdf)
- "Disadvantaged Business Enterprise Disparity Study: Volume 1", NERA Economic Consulting, 7/2013. (Maryland) [http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources\\_Information/DBEDisparityStudy%202013%20Vol1.pdf](http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources_Information/DBEDisparityStudy%202013%20Vol1.pdf)
- "Disadvantaged Business Enterprise Disparity Study: Volume 1", NERA Economic Consulting, 7/2013. (Maryland) [http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources\\_Information/DBEDisparityStudy%202013%20Vol1.pdf](http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources_Information/DBEDisparityStudy%202013%20Vol1.pdf)
- "City and County of Denver: Minority/Women Owned/Disadvantaged Business Enterprise Disparity Study", MGT of America, 7/2013. (Denver, Colorado)  
<https://www.denvergov.org/Portals/690/documents/DSBO/Disparity%20Study%202013.pdf>
- "2012 Disadvantaged Business Enterprise (DBE) Program Disparity Study Update", Mason Tillman Associates, 3/2013. (Los Angeles County, California)  
[http://media.metro.net/about\\_us/disparity\\_study/images/Final\\_Disparity\\_Study\\_Report.pdf](http://media.metro.net/about_us/disparity_study/images/Final_Disparity_Study_Report.pdf)
- "Disparity Study Metropolitan St. Louis Sewer District", Mason Tillman Associates, 12/2012. (St. Louis, Missouri)  
<http://www.stlmsd.com/sites/default/files/misc/disparity-study.pdf>
- "The State of Minority- and Women- Owned Business Enterprise: Evidence from Mississippi", NERA Economic Consulting, 12/2012. (Mississippi)  
[http://jmaa.com/wp-content/uploads/2013/01/NERA\\_JMAA\\_Disparity\\_Study\\_FinalRev.pdf](http://jmaa.com/wp-content/uploads/2013/01/NERA_JMAA_Disparity_Study_FinalRev.pdf)

- "The State of Minority- and Women- Owned Business Enterprise: Evidence from Cleveland", NERA Economic Consulting, 12/2012. (Cleveland, Ohio)  
[https://www.ceacisp.org/sites/default/files/images/disparity\\_study\\_cleveland\\_2006-2010\\_pub\\_dec\\_2012.pdf](https://www.ceacisp.org/sites/default/files/images/disparity_study_cleveland_2006-2010_pub_dec_2012.pdf)
- "Memphis Light, Gas, and Water Division Comprehensive Disparity Study and Policy Formulation", MGT of America, 12/2012. (Memphis, Tennessee)  
[http://www.mlgw.com/images/content/files/pdf/FinalDisparityStudyReport\\_01\\_18\\_2013.pdf](http://www.mlgw.com/images/content/files/pdf/FinalDisparityStudyReport_01_18_2013.pdf)
- "Comprehensive Disparity Study for the City of Pensacola", MGT of America, 9/2012. (Pensacola, Florida)  
<http://www.ci.pensacola.fl.us/DocumentCenter/Home/View/131>
- "Availability and Disparity Study: California Department of Transportation", BBC Research & Consulting, 8/2012. (California) [http://www.dot.ca.gov/hq/bep/docs/2012\\_Caltrans\\_Availability\\_and\\_Disparity\\_Study\\_Final.pdf](http://www.dot.ca.gov/hq/bep/docs/2012_Caltrans_Availability_and_Disparity_Study_Final.pdf)
- "The State of Minority- and Women- Owned Business Enterprise: Evidence from Missouri", NERA Economic Consulting, 6/2012. (Missouri) <http://www.modot.org/ecr/documents/NERAMODOTDisparityStudyFinal3.pdf>
- "2012 Georgia Department of Transportation Disparity Study", BBC Research & Consulting, 6/2012. (Georgia) <http://www.dot.ga.gov/PartnerSmart/Business/Documents/2012%20Disparity%20Study/Final/2012DisparityStudy-FinalReport.pdf>
- "The State of Minority- and Women- Owned Business Enterprise in Construction: Evidence from Houston", NERA Economic Consulting, 4/2012. (Houston, Texas)  
<http://www.houstontx.gov/obo/disparitystudyfinalreport.pdf>
- "City of Philadelphia Fiscal Year 2010 Annual Disparity Study", Econsult Corporation, 10/2011. (Philadelphia, Pennsylvania) <http://www.phila.gov/commerce/Documents/2010%20Disparity%20Study.pdf>
- "The City of Charlotte Update Disparity Study", MGT of America, 9/2011. (Charlotte, North Carolina)  
<http://charlottenc.gov/mfs/cbi/Documents/2011DisparityStudy.pdf#search=disparity%20study>
- "Illinois Department of Transportation/Illinois Tollway Disadvantaged Business Enterprises Disparity Study: Volume 2", Mason Tillman Associates, 9/2011. (Illinois)  
<http://www.diversity.dot.illinois.gov/pdf/DBEDisparityStudy.pdf>
- "Illinois Department of Transportation/Illinois Tollway Disadvantaged Business Enterprises Disparity Study: Volume 1", Mason Tillman Associates, 8/2011. (Illinois)  
<https://www.illinoistollway.com/documents/10157/15890/Final+Disparity+Study+Report>
- "The State of Minority- and Women- Owned Business Enterprise: Evidence from Maryland", NERA Economic Consulting, 2/2011. (Maryland) [http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources\\_Information/NERA\\_MD\\_Disparity\\_Study\\_Final\\_20110218.pdf](http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources_Information/NERA_MD_Disparity_Study_Final_20110218.pdf)
- "Portsmouth Public Schools Procurement Disparity Study Final Report", MGT of America, 1/2011. (Portsmouth, Virginia) [http://pps.k12.va.us/UserFiles/Servers/Server\\_794494/File/MWBE%20Program/PPS%20Procurement%20Disparity%20Study.pdf](http://pps.k12.va.us/UserFiles/Servers/Server_794494/File/MWBE%20Program/PPS%20Procurement%20Disparity%20Study.pdf)
- "Washington Suburban Sanitary Commission 2010 Disparity Study", Mason Tillman Associates, 1/2011. (Maryland/Washington, DC) <https://www.wsscwater.com/files/live/sites/wssc/files/SLMBE/WSSC%202010%20Disparity%20Study%20Final%20Report.pdf>
- "Disparity Study for the City of Milwaukee", D. Wilson Consulting Group, 12/2010. (Milwaukee, Wisconsin)  
[http://city.milwaukee.gov/ImageLibrary/Groups/doaEBEP/Events/Disparity\\_Study\\_-\\_Full\\_Report.pdf](http://city.milwaukee.gov/ImageLibrary/Groups/doaEBEP/Events/Disparity_Study_-_Full_Report.pdf)
- "The State of Minority- and Women- Owned Business Enterprise: Evidence from Broward County", NERA Economic Consulting, 11/2010. (Broward County, Florida)  
<http://www.broward.org/zArchive/econdev/Documents/NERABrowardDisparityStudyFinal112210.pdf>

- "A Study to Determine DBE Availability and Analyze Disparity in the Transportation Contracting Industry in Oklahoma", BBC Research & Consulting, 11/2010. (Oklahoma) [https://www.ok.gov/odot/documents/02\\_dbe\\_dis\\_title-page.pdf](https://www.ok.gov/odot/documents/02_dbe_dis_title-page.pdf)
- "The State of Minority- and Women-Owned Business Enterprise: Evidence from Hawai'i", NERA Economic Consulting, 10/2010. (Hawaii) [http://www.oahumpo.org/wp-content/uploads/2013/01/ReportNERA\\_HDOT\\_final.pdf](http://www.oahumpo.org/wp-content/uploads/2013/01/ReportNERA_HDOT_final.pdf)
- "The State of Minority- and Women- Owned Business Enterprise: Evidence from Minneapolis", NERA Economic Consulting, 10/2010. (Minneapolis, Minnesota) <http://www.ci.minneapolis.mn.us/www/groups/public/@civilrights/documents/webcontent/wcms1p-084807.pdf>
- "Joint Availability and Disparity Study: City of Arlington", Mason Tillman Associates, 6/2010. (Arlington, Texas) <http://www.arlington-tx.gov/finance/wp-content/uploads/sites/24/2014/06/NCTOG-Joint-Availability-and-Disparity-Study-for-the-City-of-Arlington.pdf>
- "Airport Concessions Disparity Study", Exstare Federal Services Group, 5/2010. (Phoenix, Arizona) <https://skyharbor.com/docs/default-source/pdfs/airport-concessions-disparity-study-final-report.pdf?sfvrsn=2>
- "The State of Minority- and Woman- Owned Business Enterprise: Evidence from New York", NERA Economic Consulting, 4/2010. (New York) [http://esd.ny.gov/mwbe/Data/NERA\\_NYS\\_Disparity\\_Study\\_Final\\_NEW.pdf](http://esd.ny.gov/mwbe/Data/NERA_NYS_Disparity_Study_Final_NEW.pdf)
- "A Historically Underutilized Business (HUB) Disparity Study of State Contracting 2009", MGT of America, 3/2010. (Texas) [http://trcc.state.tx.us/procurement/prog/hub/disparity/Texas\\_DS\\_2009\\_ExeSum.pdf](http://trcc.state.tx.us/procurement/prog/hub/disparity/Texas_DS_2009_ExeSum.pdf)
- "City of Memphis, Tennessee Comprehensive Disparity Study", Griffin & Strong, P.C., 3/2010. (Memphis, Tennessee) [http://www.memphistn.gov/portals/0/pdf\\_forms/diversity\\_study.pdf](http://www.memphistn.gov/portals/0/pdf_forms/diversity_study.pdf)
- "A Disparity Study for the Commonwealth of Virginia", MGT of America, 1/2010. (Virginia) [http://static.mgnetwork.com/rtd/pdfs/20100328\\_race\\_disp04.pdf](http://static.mgnetwork.com/rtd/pdfs/20100328_race_disp04.pdf)
- "OCTA Disparity Study Final Report", BBC Research & Consulting, 1/2010. (Orange County, California) <https://camnet.octa.net/files/OCTA%20Disparity%20Study%20Final%20Report.pdf>
- "Metro Disparity Study Final Report: Los Angeles County Metropolitan Transportation Authority", BBC Research & Consulting, 1/2010. (Los Angeles County, California) [http://media.metro.net/about\\_us/deod/images/disparity\\_study/Metro-Disparity-Study-Final-Report-01-22-10.pdf](http://media.metro.net/about_us/deod/images/disparity_study/Metro-Disparity-Study-Final-Report-01-22-10.pdf)
- "Colorado Department of Transportation Statewide Transportation Disparity Study", D. Wilson Consulting Group, 11/2009. (Colorado) [https://www.codot.gov/library/studies/2009-disparity-study-and-appendices/CDOT\\_2009\\_Disparity\\_Study.pdf](https://www.codot.gov/library/studies/2009-disparity-study-and-appendices/CDOT_2009_Disparity_Study.pdf)
- "State of Minnesota Joint Availability and Disparity Study: Department of Transportation", MGT of America, 10/2009. (Minnesota) <http://www.mmd.admin.state.mn.us/disparity/Revised2009MnDOTDisparityStudy.pdf>
- "State of Minnesota Joint Availability and Disparity Study: Department of Administration", MGT of America, 10/2009. (Minnesota) <http://www.mmd.admin.state.mn.us/disparity/Revised2009AdminDisparityStudy.pdf>
- "State of Minnesota Joint Availability and Disparity Study: Metropolitan Airports Commission", MGT of America, 10/2009. (Minnesota) <https://www.metroairports.org/documents/MAC-2009-Disparity-Study.aspx>
- "State of Minnesota Joint Availability and Disparity Study: Metropolitan Mosquito Control District", MGT of America, 10/2009. (Minnesota) <http://www.mmd.admin.state.mn.us/disparity/Revised2009MMCDDisparityStudy.pdf>
- "State of Minnesota Joint Availability and Disparity Study: Metropolitan Council", MGT of America, 10/2009. (Minnesota) <http://www.mmd.admin.state.mn.us/disparity/Revised2009METCDDisparityStudy.pdf>
- "State of Minnesota Joint Availability and Disparity Study", MGT of America, 10/2009. (Minnesota) <http://www.mmd.admin.state.mn.us/disparity/Revised2009MnDOTDisparityStudy.pdf>

- "Race, Sex, and Business Enterprise: Evidence from Augusta, Georgia", NERA Economic Consulting, 9/2009. (Augusta, Georgia) <http://www.augustaga.gov/DocumentCenter/Home/View/2072>
- "Measuring Business Opportunity: A Disparity Study of NCDOT's State and Federal Programs", Euquant, 8/2009. (North Carolina) <https://connect.ncdot.gov/business/SmallBusiness/Documents/Business%20Opportunity%20Compliance%20-%20Full%20Version.pdf>
- "Disparity/Availability Study for the Montana Department of Transportation", D. Wilson Consulting Group, 8/2009. (Montana) [http://www.mdt.mt.gov/other/webdata/external/research/docs/research\\_proj/disparity/final\\_report.pdf](http://www.mdt.mt.gov/other/webdata/external/research/docs/research_proj/disparity/final_report.pdf)
- "City of Davenport Disparity Regarding Minority and Women Participation in Contracting", Mason Tillman Associates, 6/2009. (Davenport, Iowa) [http://www.davenportnaacp.org/downloads/Davenport\\_Disparity\\_Study\\_2009.pdf](http://www.davenportnaacp.org/downloads/Davenport_Disparity_Study_2009.pdf)
- "Report on the City of Chicago's MWBE Program", David G. Blanchflower, 6/2009. (Chicago, Illinois) <http://www.dartmouth.edu/~blnchflr/papers/chicago%20sunset%20final%20report%20june%2010th%202009-0.pdf>
- "San Francisco Bay Area Rapid Transit District Availability and Utilization Study", Mason Tillman Associates, 4/2009. (San Francisco, California) [https://www.bart.gov/sites/default/files/docs/Final\\_Availability\\_and\\_Utilization\\_Study\\_4-6-09.pdf](https://www.bart.gov/sites/default/files/docs/Final_Availability_and_Utilization_Study_4-6-09.pdf)
- "Availability Analysis and Disparity Analysis for the Arizona Department of Transportation", MGT of America, 3/2009. (Arizona) <https://repository.asu.edu/items/28164>
- "A Comprehensive Disparity Study of the City of Tucson MWBE Program", D. Wilson Consulting Group, 9/2008. (Tucson, Arizona) <https://www.tucsonaz.gov/files/oeop/DisparityStudy08.pdf>
- "A Disparity Study for the City of Saint Paul and the Saint Paul Housing and Redevelopment Authority", MGT of America, 8/2008. (Saint Paul, Minnesota) [https://www.stpaul.gov/DocumentCenter/Government/Human%20Rights%20&%20Equal%20Economic%20Opportunity/Publications%20&%20Resources/Disparity%20Study/2008%20Disparity%20Study\\_201506161151224076.pdf](https://www.stpaul.gov/DocumentCenter/Government/Human%20Rights%20&%20Equal%20Economic%20Opportunity/Publications%20&%20Resources/Disparity%20Study/2008%20Disparity%20Study_201506161151224076.pdf)
- "A Second-Generation Disparity Study for the City of Dayton, Ohio", MGT of America, 8/2008. (Dayton, Ohio) [http://www.mvfairhousing.com/ai2015/2008-08-08\\_Disparity\\_Study\\_Dayton.PDF](http://www.mvfairhousing.com/ai2015/2008-08-08_Disparity_Study_Dayton.PDF)
- "Race, Sex, and Business Enterprise: Evidence from the City of Austin", NERA Economic Consulting, 5/2008. (Austin, Texas) [https://www.austintexas.gov/sites/default/files/files/Small\\_Minority\\_Business/Report-neracoa\\_may2008.pdf](https://www.austintexas.gov/sites/default/files/files/Small_Minority_Business/Report-neracoa_may2008.pdf)
- "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization", CRA International - Mark Berkman, Matthew Johnson, Robert Fairlie, 12/2007. (Santa Clara Valley, California) <http://www.vta.org/sfc/servlet.shepherd/version/download/068A0000001FbwY>
- "A Study to Determine DBE Availability and Analyze Disparity in the Transportation Contracting Industry in Idaho", BBC Research & Consulting, 12/2007. (Idaho) <https://itd.idaho.gov/civil/pdf/Disparity/Study.pdf>
- "Quantitative Analysis of the Availability of Minority- and Women-Owned Businesses and their Utilization by the Corpus Christi Regional Transportation Authority", Jim Lee, 11/2007. (Corpus Christi, Texas) <https://www.cccta.org/wp-content/uploads/2016/06/cccta-disparity-study-2007.pdf>
- "City of Birmingham Disparity Study Report", Pendleton, Friedberg, Wilson & Hennessey, P.C., 9/2007.
- "For Development and Revision of Small, Minority & Women Business Enterprise Program", Griffin & Strong, P.C., 9/2007. (Nashville, Tennessee) <https://www.flynashville.com/business-diversity-development/Documents/MNAADisparityStudy.pdf>
- "Disparity Study in Building Construction and Building Design", Mason Tillman Associates, 8/2007. (Pennsylvania) <http://www.dgs.pa.gov/Businesses/Minority.%20Women%20and%20Veteran%20Businesses/Documents/Disparity%20Study.pdf>

- "City of Milwaukee Study to Determine the Effectiveness of the City's Emerging Business Enterprise Program", Mason Tillman Associates, 8/2007. (Milwaukee, Wisconsin) [http://www.city.milwaukee.gov/ImageLibrary/Groups/boaBusinessOp/EBEP\\_STUDY.pdf](http://www.city.milwaukee.gov/ImageLibrary/Groups/boaBusinessOp/EBEP_STUDY.pdf)
- "Availability and Disparity Study: California Department of Transportation", BBC Research & Consulting, 6/2007. (California) [http://www.dot.ca.gov/hq/bep/study/Avail\\_Disparity\\_Study\\_Final\\_Rpt.pdf](http://www.dot.ca.gov/hq/bep/study/Avail_Disparity_Study_Final_Rpt.pdf)
- "Fairness in Purchasing and Contracting Disparity Study", Mason Tillman Associates, 5/2007. (Oakland, California) <http://cces.oaklandnet.com/ContComp/Pdf/CityofOaklandVolume1MasterReportMay20075-11-07.pdf>
- "City of Philadelphia Fiscal Year 2006 Annual Disparity Study", Econsult Corporation, 5/2007. (Philadelphia, Pennsylvania) <http://mbec.phila.gov/HOME/forms/FY%202006%20Disparity%20Study%20-%20FINAL%202007-06-01.pdf>
- "The City of Houston Disparity Study", Mason Tillman Associates, 12/2006. (Houston, Texas) <https://www.houstontx.gov/obo/reports/cohdisparitystudy2006.pdf>
- "The Prince George's County Government Disparity Study Final Report", D.J. Miller & Associates, 11/2006. (Prince George's County, Maryland) <http://www.pfccoalition.org/Study/Disparity+Study+Final+Report.pdf>
- "A Business Underutilization Causation Analysis Study for the City of Columbia", MGT of America, 8/2006. (Columbia, South Carolina) <https://www.columbiasc.net/depts/obo/docs/extprod012139.pdf>
- "Race, Sex, and Business Enterprise: Evidence from the State of Illinois and the Chicago Metropolitan Area", NERA Economic Consulting, 6/2006. (Illinois) <https://www.illinoistollway.com/documents/10157/dcef5ab6-c681-4156-a364-e8413aa4f0f1>
- "Race, Sex, and Business Enterprise: Evidence from Denver, Colorado", NERA Economic Consulting, 5/2006. (Denver, Colorado) <https://www.denvergov.org/Portals/690/documents/060505FinalDenverReport.pdf>
- "Multi-Jurisdictional Disparity Consultant Services", Mason Tillman Associates, 4/2006. (Tampa, Florida) [http://www.tampagov.net/sites/default/files/minority-business-development/files/disparity\\_study\\_final\\_report\\_050206\\_vol\\_1.pdf](http://www.tampagov.net/sites/default/files/minority-business-development/files/disparity_study_final_report_050206_vol_1.pdf) [http://www.tampagov.net/sites/default/files/minority-business-development/files/disparity\\_study\\_report\\_final\\_report\\_vol\\_2\\_050406.pdf](http://www.tampagov.net/sites/default/files/minority-business-development/files/disparity_study_report_final_report_vol_2_050406.pdf)
- "Race, Sex, and Business Enterprise: Evidence from the State of Maryland", NERA Economic Consulting, 3/2006. (Maryland) [http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources\\_Information/FinalReportNERAMaryland.pdf](http://www.mdot.maryland.gov/Office%20of%20Minority%20Business%20Enterprise/Resources_Information/FinalReportNERAMaryland.pdf)
- "Analysis of Essex County Procurement and Contracting", University of Minnesota Disparity Study Research Team, 10/2005. (Essex County, New Jersey) <http://essexcountynj.org/report.pdf>
- "Race, Sex, and the Business Enterprise: Evidence from the State of Washington", NERA Economic Consulting, 10/2005. (Washington) <https://assets.documentcloud.org/documents/367581/nera-wsdot-study-2005.pdf>
- "State of New Jersey Construction Services Disparity Study 2000-2002", Mason Tillman Associates, 10/2005. (New Jersey) <https://dspace.njstatelib.org/xmlui/bitstream/handle/10929/22390/e192005.pdf?sequence=1>
- "State of New Jersey Disparity Study of Procurement in Professional Services, Other Services, and Goods and Commodities", Mason Tillman Associates, 6/2005. (New Jersey) [http://www.cdapc.com/assets/Documents/IG\\_REPORTS\\_AND\\_DISPARITY\\_REPORT/NJ\\_STATE\\_DISPARITY\\_FINAL\\_REPORT\\_6-13-2005.pdf](http://www.cdapc.com/assets/Documents/IG_REPORTS_AND_DISPARITY_REPORT/NJ_STATE_DISPARITY_FINAL_REPORT_6-13-2005.pdf)
- "WSSC 2005 Disparity Study - Summary and Recommendations", BBC Research & Consulting, 6/2005. (Washington) [http://dlslibrary.state.md.us/publications/ICA/WSSC/DisparityStudy\\_2005.pdf](http://dlslibrary.state.md.us/publications/ICA/WSSC/DisparityStudy_2005.pdf)
- "City of New York Disparity Study", Mason Tillman Associates, 1/2005. (New York, New York) <http://masontillman.com/sites/masontillman.com/files/attachments/1312%20City%20of%20New%20York%20Final%20REPORT%201-24-05.pdf>
- "Alameda County Availability Study", Mason Tillman Associates, 10/2004. (Alameda County, California) <https://www.acgov.org/government/documents/availabilitystudy.pdf>

- "A Procurement Disparity Study of the Commonwealth of Virginia", MGT of America, 1/2004. (Virginia)  
[http://static.mgnetwork.com/rtd/pdfs/20100328\\_race\\_disp04.pdf](http://static.mgnetwork.com/rtd/pdfs/20100328_race_disp04.pdf)
- "Mecklenburg County Disparity Study", MGT of America, 1/2004. (Mecklenburg County, North Carolina)  
<http://charmeck.org/mecklenburg/county/edo/MWSBE/Documents/FR2168County.pdf>
- "State of Ohio Predicate Study", D.J. Miller & Associates, 7/2001. (Ohio) <https://www.dot.state.oh.us/groups/DisparityStudies/Documents/Study%20Resources/2001%20Predicate%20Study%20Final%20Report.pdf>
- "Colorado Department of Transportation Disparity Study Update", MGT of America, 4/2001. (Colorado)  
<http://hermes.cde.state.co.us/drupal/islandora/object/co%3A5196>
- "MWBE Local Business Disparity Study for the City of Evanston", D.J. Miller & Associates, 4/1996. (Evanston, Illinois)  
<http://www.cityofevanston.org/assets/DJ%20Miller%20%20Associates%20Disparity%20Study%20April%201996.pdf>
- "State of Texas Disparity Study", National Economic Research Associates, 12/1994. (Texas)





## APPENDIX B

# Glossary

**anecdotal evidence.** Qualitative data derived through personal interviews, focus groups, public hearings, surveys, written testimony and other means, that details accounts of discrimination, disparate treatment, or barriers faced by individuals with respect to business operations.

**availability.** A measure of the number of firms in a particular geographic and product market that are ready, willing, and able to perform work for procurement agencies. Availability is typically expressed on an expected contract-dollar basis and can be reported at different levels of aggregation depending on race, ethnicity and gender combinations.

**bid capacity.** Analysis of the sizes of contracts and subcontracts that a particular business has bid on or been awarded in the past.

**bid shopping.** The practice of a prime contractor providing bid information from a minority-owned subcontractor to a non-minority subcontractor with the intent of receiving a new bid from the non-minority subcontractor to undercut the bid received from the minority-owned subcontractor.

**bonding.** A type of surety bond that guarantees reimbursement to the agency/authority for any financial losses caused by fraudulent or dishonest acts by officers or employees of the contractor or subcontractor. This includes theft, embezzlement, and forgery. Bonding is required for most public contracting projects involving construction or large up-front investments.

**bundled contracts.** Multiple, smaller contracts or goods/services that are combined into one larger contract.

**capacity.** A firm-level measure of whether a particular DBE contractor has the ability to fulfil the requirements of a particular contract (e.g., does it have the capacity to perform the contracted work such that it can be considered ready, willing, and able to bid on the project).

**compelling interest.** Pertains to the first prong of the strict scrutiny standard, where the constitutionality of race-conscious contracting programs is evaluated to assess whether the benefits of exclusion of others offers significant benefits to the government.



**disadvantaged business enterprise (DBE).** For-profit small business concerns where socially and economically disadvantaged individuals own at least a 51% interest and also control management and daily business operations. African Americans, Hispanics, Native Americans, Asian-Pacific and Subcontinent Asian Americans, and women are presumed to be socially and economically disadvantaged. Other individuals can also qualify as socially and economically disadvantaged on a case-by-case basis.

**disaggregation.** The process of splitting a larger group into smaller constituent parts. For example, statistics presented for minority business enterprises include data pertaining to African Americans, Hispanic Americans, Asian Americans, etc. Disaggregation is typically used in the context of analyzing disparity ratios at a finer level of detail based on particular ethnic or racial groups, as well as within major industry groupings.

**discrimination.** The unjust or prejudicial treatment of different categories of people or things, especially on the grounds of race, age, or sex.

**disparity index or disparity ratio.** The utilization of minority-owned firms divided by the availability of minority-owned firms in a particular geographic and product market. A disparity index or ratio is often expressed as a decimal, or alternatively multiplied by 100. When expressed as a decimal, an index of 1.0 indicates parity. When multiplied by 100, an index of 100 equals parity. Values less than 0.8 or 80 typically indicate a substantial disparity.

**Dun & Bradstreet (D&B).** A business services company that provides commercial data on businesses including credit history and ownership status.

**federal disadvantaged business enterprise (DBE) program.** A program designed to remedy ongoing discrimination and the continuing effects of past discrimination in federally-assisted highway, transit, airport, and highway safety financial assistance transportation contracting markets nationwide. The primary remedial goal and objective of the DBE program is to level the playing field by providing small businesses owned and controlled by socially and economically disadvantaged individuals a fair opportunity to compete for federally funded transportation contracts. Established by the USDOT after enactment of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) as amended in 1998. 49 CFR Part 26 includes the regulations covering the Federal DBE Program.

**metropolitan statistical area (MSA)** Geographic regions and entities used in the collection and tabulation of Federal statistics. MSAs are defined by the Office of Management and Budget (OMB) and are used by multiple agencies to delineate geographic areas.

**minority business enterprise (MBE).** Minority group members are United States citizens who are Asian, Black, Hispanic and Native American. Ownership by minority individuals indicates that the business is at least 51% owned by such individuals or, in the case of a publicly-owned business, at least 51% of the stock is owned by one or more such individuals i.e. the management and daily operations are controlled by those minority group members.

**M/WBE.** An aggregate measure of all minority- and women-owned business establishments for a particular disparity study.

**narrowly tailored.** Relates to the second prong of the strict scrutiny standard, where a narrowly tailored program is one that remedies discrimination for affected groups while considering race-neutral means and the rights of third parties.

**North American Industrial Classification System (NAICS).** A standardized method of identifying the sector or industry in which a company operates using a numerical system ranging from two to six digits.

**p-value.** A measure of statistical significance, where the p-value provides a numerical probability that an outcome or result is due purely to chance. The lower the p-value, the less likely that the outcome is due to chance, as opposed to other causal factors.

**prime.** A business that contracts directly with the government agency.

**race-based or race-conscious program:** A government initiated program that specifically includes racial or ethnic preferences in alleviating discriminatory behavior against affected racial or ethnic minority business enterprises in public contracting.

**race-neutral measures.** Contracting programs or initiatives that apply to all businesses regardless of race. Examples include assisting all small businesses in overcoming barriers to bonding and insurance, simplifying bidding procedures, providing technical assistance or establishing start-up assistance programs.

**regression analysis.** A statistical method that examines the relationship between variables using mathematical models to determine the best fit of data points. Regression involves estimating the relationship between a dependent variable and one or more independent variables which can influence the dependent variable result.

**relevant geographic market.** The geographic market in which disparity ratios are computed for MBEs in an particular industry. Typically, geographic markets are determined through an analysis evaluating where a substantial number of contract dollars are awarded from a procurement agency or agencies.

**relevant product market.** The industry in which disparity ratios are computed for MBEs in a particular geographic area. Typically, industries are determined through an analysis evaluating where a substantial number of contract dollars are awarded from a procurement agency or agencies to firms operating within particular industries. Most disparity studies include analyses involving "Construction," "Professional Services," "Goods and Supplies," and "Architecture & Engineering Services."

**set-aside.** A contracting preference program where certain contracts are earmarked for restricted competition. These contracts are only available to a subset of businesses, for example, minority-owned firms.

**statistically significant.** A result is statistically significant if it is determined that the observed result is not attributable to chance. The level of significance depends on p-values, where a greater the level of significance equates with a lower probability that the result is due to chance alone.

**strict scrutiny.** A form of judicial review that courts use to determine the constitutionality of certain laws. The two prongs of the strict scrutiny standard include establishing a compelling governmental interest and narrowly tailoring a race-conscious remedial program.

**subcontractor.** A contractor that provides contract work to prime contractors, not directly to the government agency.

**utilization.** A measure of what percentage of contracts or dollars are awarded to minority-owned businesses. Calculated by dividing the total contracts or dollars awarded to minority-owned firms by the total contracts or dollars awarded to all firms.

**woman-owned business enterprise (WBE).** A business with at least 51 percent ownership and control by women. Some studies restrict the WBE definition to include only non-minority women, while others include minority-owned women in the definition.



